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VOL. IV

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GALAXY and the GALAXY

IN THE PAST four years or so something on the order of twenty thousand manuscripts have passed through my hands. After the first few thousand I became suspicious. After ten thousand the suspicion thickened. Now, after twenty thousand manuscripts I am certain: science fiction, as a growing, conceptually vital field, is in a state of crisis, a crisis of ideas, a crisis that it may not survive.

Oh, as a minor, formula-oriented literary subgenre—or sub-literary genre—it is secure enough. More people than ever seem to be reading it, the moguls of television and Hollywood are beginning to take a serious interest. But where are the new ideas? Is television? The movies? The formula in these honorable media seems to be to take some antique theme from the 40's or 50's—adventures aboard the crippled, multi-generation colony ship that will forever wander aimlessly between the stars, or aboard the FTL vessel that has slipped into a "space warp" and is Lost In Space—and adapt it. Adaptation meaning in this case to bastardize, prostitute, mindlessly oversimplify, and otherwise make suitable for the

moguls' conception of the mass-mentality what was initially in honor of somewhat bewhiskered science-fictional conception. Even the many new readers (long may they prosper!) are mostly interested in what science fiction has been, not what it is becoming.

And who can blame them? What little there is in the way of originality in modern science fiction consists in the main of variations on the theme of human misery. Misery without end—an all-encompassing, open-ended misery that is almost admirable in its single-minded affirmation that the game of life is fixed: that you've got to play, that you can't win, and that in every possible aspect of its potentially infinite variation, now and forever, the playing itself must be a miserable experience, filled with pain, devoid of joy. An affirmation, in other words, that it is better to be dead than to be alive.

Is it any wonder, then, that the latest re-issue of *The City and the Stars* is selling like hotcakes? Or that the *Foundation Trilogy* is in its umpteenth printing? Hardly. People—even intelligent people—can be told only so many times that life by

definition is a bucket of sewage with the handle inside, firmly affixed to the bottom of the bucket, before they wander off to look for the latest Asimov or Heinlein re-issue, even if it is *Lucky Star* and the *Pirates of the Asteroids*, or *Have Spacesuit—Will Travel*. I've done it myself.

Are there then no glorious new conceptions equivalent for the 70's and 80's of what space travel and extraterrestrial intelligence were for an earlier time? Have we indeed run out of ideas? Is there nothing left but infinite variations on a strictly limited number of antique themes, the mental poverty being at best obscured under the guise of literary experimentation?

For a while I thought that that might indeed be the case, but I have since concluded that far from there being too few ideas, there are too many, and that taken together, as they must be, they offer, *in situ* upon a "universe of discourse" so varied and vast in scope that it defies the imagination and perhaps even (dare I say it?) the intelligence of the best of us, even unto our science fiction writers, brilliant as they all undoubtedly are.

Indeed, it may well be the case that the reason, the *real* reason, for the nearly universal nihilism in modern sf—if that is not merely a rehashing of old themes—is that the ramifications of assuming continued progress in science and technology are simply too difficult to conceive,

that such future vistas are simply too vast to be grasped.

So where are all these ideas that I claim are being willfully ignored? The same place they always were: in the writings of scientists and their popularizers. Virtually every area of science is pregnant with major, high-social-impact developments, developments that are not, many of them, "looming on the horizon," but are literally waiting for funding.

Space: Microwave-powered stellar probes; O'Neill colonies; asteroid mining; orbital power-generating stations; planetary engineering (Venus, in particular, is ripe for the plucking).

Biology: Recombinant DNA research (maybe that should wait on the availability of orbital laboratories); "bio bushes," plants capable of harvesting ten or twenty percent of the sunlight that falls on them; a cloned work force of semi-intelligent simians that are bred for happiness, docility—and manual labor; biological sewage systems capable of reharvesting, with the aid of sunlight, everything that is dumped into them.

Cybernetics: Artificial Intelligence (called "A.I." by those in the field); "hand calculators" that by virtue of being mobile extensions of giant computers (see "Artificial Intelligence") have available to them the sum total of human knowledge and computational capacity, devices that would make all but the dullest of us

hyper-intelligent and almost omniscient.

The list is endless; the available grist for the science-fictional mill is virtually infinite, both in variety and quantity.

But there is a kicker. It's all or nothing. The writer cannot just go to the idea shelf, pick one that he likes, and proceed to examine its implications in isolation from all the rest. If any of them happen, they all happen, or at least a very large number of them do. There will be no O'Neill colonies without plentiful power, without asteroid mining giving us a super abundance of minerals, without amplified human intelligence, without... without everything.

That's part of the problem. It gets worse: each one of these developments is but the tip of a conceptual iceberg of further developments and applications.

Take the laser, for one example. At first it was an interesting gadget useful for measuring distant objects and cutting close ones in a spectacular manner, with maybe distant applications as a communications device. Now it is, or soon will be, a space propulsion system, a surgical tool, the heart of an anti-ballistic-missile system, a "science-fiction death-ray," and who knows what else.

The same is true for all the developments now pending. Let's take just one of them and follow its ramifications as far as imagination

Colonies in Space

by T. A. Heppenheimer

Introduction by Ray Bradbury

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fortified by a few calculations will take us.

The O'Neill colonies assume that they are feasible. Assuming that, you have also assumed that they are pretty much, in the long run at least, resource-independent of earth—that they can grow their own food from raw materials of extra-terrestrial origin, and that they have manufacturing capacity such that they are capable of self-replication (which latter capacity they will possess almost by definition; the first colonies will, after all, have virtually built themselves.)

What, then, would be the "limits of growth" for such colonies? Other than human procreancy the only limiting factor I can come up with

is mass (which would come into play long before available sun-power—the famous “Dyson Limit”—would become a factor). In other words, conservatively speaking, the potential “mass” of humanity would seem to be limited only by the present mass of the solar system’s asteroids, moons and smaller planets—and I suspect that when they are needed the means will be available for plucking the gas giants as well.

Note, please, that we are not talking here of some unimaginably distant, million-years-hence future, in terms of the already elapsed lifetime of our species the urbanization of the solar system is but an eyeblink away. Even in the short term the figures are startling.

Starting with a core population of fifty thousand colonists in the Year 2000, by 2250 there will be more people in space than presently reside on this planet. By the Year 2600 there will be a million, far more than earth could possibly hold. Before the fourth millennium has run its course, a quadrillion—and population pressure will begin to be such that the more adventurous will have headed for the stars, in perfect indifference as to whether such stars have “earth-like” planets, so long as there is mass available. The Great Exodus will have begun.

Assuming a propulsion system capable of attaining a velocity one-tenth that of light (1 c , or 30,000 km./sec.), in a few million years it

will be over. The galaxy will belong to humanity... or will it be over? Perhaps the yawning gulfs between the galaxies will not seem so unbridgeable by then.

Ok. That’s as far as I can go with space colonies. Now add intelligence amplification (is it a person or a machine—only the composite entity knows for sure) Artificial intelligence. Inevitable contact with non-human intelligences (if we can’t find them, we’ll breed them). A thousand other things. Now mix them all together—and don’t forget that they will all interact on each other and on us in infinitely complex fashion, and at an ever-accelerating pace.

Now add at least one fundamental development on a par with lasers and space colonies that has not yet been conceived, any story pretending to deal with the future that does not have at least one such is mere fantasy.

Now write me a story that takes all of this at least implicitly into account.

Clearly our future, if we have one at all, is so complex as to seem beyond mortal comprehension: what then of fictional portrayal of that future? Who among us can take this kaleidoscope of ever shifting, unending, always interacting and evolving marvels and fix it in his mental grasp? Can anyone? As a science-fiction editor I can only hope that one of you out there will prove to me that it can be done.

—BAIN

...and earth so far away

Herbert Charles Petley

Hero or scoundrel, savior or
coward? If he failed, only a
Marsman would know for sure!



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Galaxy

Science Fiction

H.C. Petley . . . AND EARTH SO FAR AWAY

Frank Herbert Frederik Pohl J.E. Pournelle

ARSEN DARNAY SPIDER ROBINSON CHARLES SHEFFIELD



THE TANK SPUN SLOWLY in far cold space at the inner reaches of the asteroid mines. A sparkling frost clung to its water condensed and frozen on its aluminum skin, water condensed after the blast and wreckage of a mining platform. They were all a mass of tanks, those ships, great tanks and clusters of pipes, miles of pipes curving back on each other, and miles of wires, all propelled by supersteam generated from uranium fires. The steam engine was a remarkable device. Who would have thought that the same principle that powered Watt and Fulton would, three hundred years later, power a mining platform half a mile long, hang up in space to sweep asteroids? The old fiction writers were the only ones who dared. No sane scientist would have ventured it. They knew something, those old dreamers.

The men lay sleeping in a simulated night. Eleven forms tied into cocoon, tied neatly to the bulkhead in designated rows. One sleepnet lay empty. Avo looked at it, a withered weightless pod. He listened in the dim light, a gloom that was almost dark. He could hear the men breathing in their dreams. Planet dreams. Wild rivers of Earth and cumulus clouds towering over green islands set in silver blue sea . . . baked powdery plains stretched before lunar craters, the rims of the craters etched against the black night of space . . . rudely dreams of Mars when the barren

fields bloomed and children in their alpacas scampered over the mounds of tekites digging for rubies. Mars, Moon, Earth.

They slept, these planetmen in a frosted tank in space. Avo looked again at the empty sleepnet. "Stupid Earthman," he whispered. "I'm sorry you're dead." His voice surprised him. It was like the wheezy breathing of the sleepers. "Tasmor," he thought, "you know it all. Captain, manager, navigator. You were still an Earthman." Avo wondered in the night and knew he could not sleep. He peered at his times, three hours and twelve minutes before wake-up, before the tank lighted up for day-side. Tasmor would never wake up.

Sixteen days they had floated like this since the blast and breakup of the platform. They all had plenty of time to make it back to the house, or command module in the engineer's lingo. The breakup took five days, irrevocable destruction. A billion-dollar cluster of machinery blown to pieces, a million tons of water, a million tons of assorted ores, mostly chromium, worth who knew how much? It was plain disaster. They were lucky no one was killed outright. Tasmor had died on the fourth day, out in space in his air suit. He was supervising Avo and Hennings as they cut away a giant section of superstructure that threatened to keep them spinning with an uncontrollable yaw. Tasmor shouldn't have been out

there. It was an Earthman stunt, a show of the dynamic man in full command of a disaster.

Tassmer was thirty for the adventure of space. He should have stayed within the house, or rather, since he was first and forever an engineer, his command module. To any spacer it was the house. Tassmer had come out to see the adventure of Avo, ship's first officer and only Martian navigator. Avo with twenty-three annals in space, ten of those years on the ice shuttles to Saturn; Avo and Hennings, a junior roustabout from Moon, had to cut away the hanging piece of superstructure with laser torches. It was a grandstand event for Tassmer. What a tale to tell the Earthlings after the rescue, after his retirement to the rolling horseback hills of Virginia. Tassmer had the rescue all figured out until the G force of the yaw gave an unknowable torque to the fragment of ingenuous machine that spun out and cracked him across the back, squeezing him dead in his air suit against the hull of the house-tank. The suit popped like a little balloon. Avo had advised against Tassmer coming out. It was just one man too many for the job. But Tassmer was both captain and manager.

That was part of the Earthman mystique which the owners of the corporate mining vehicles and platforms created. The captains were always Earthmen. No Martian had ever been assigned command of a

mining complex nor was likely to, given the current state of politics. Mars had two break-away colonies now. Two independent cities grown up outside the authority of the Constitutional government. The three recognized Martian city-states, Marsport, Crazer, and Vostokgrad, were unwilling to abandon their marverick offspring, indeed unable to especially considering that the two rebel colonies each had nuclear missile capacity as well as their own consorts and wide ranging support from spacers far and near.

The first independent colony, called Vardis and NovaMars Community, had sprouted up one winter taking Earth completely by surprise. This historical precedent was clear and present, however, and the surprise only served to prove how far Earth was from the realities of Mars and the potential riches available there past fifty annals from asteroid mines.

In one annal the first new colony had created its own breeder reactors, its own glass factory, its own miles of agriculture domes. They made good contracts with wildest miners and arranged to carry their own nuclear wastes to a docking orbit out among the rocks in asteroid space. The Earth-generated embargoes, boycotts and restrictions prohibited them from trading nuclear by-products down to Moon Industries. Moon did what Earth decided Moon would do. But Mars was another story.

The second rebel colony had sprung the following spring in the southern hemisphere and that wasn't even broadcast on Earth. It didn't have a name, it existed, however, a true rebel city founded by renegade Russians and privateer pirates from America. The two made natural, historical allies; the Russians were calculating scientists, slow moving but acute in their methods and long range plans, the American pirates unpredictable, daring and rich with treasures dug out of space. Both reveled in conspiracies and the outward display of arms.

The southern Mars hemisphere was virtually uninhabited. Only a few isolated weather stations or Earth-side scientific teams existed there. The pirate city had such awesome potential that many rumors were flying of an armed Earth expeditionary force. But that was rumor. Earth was so far away and the renegade colonies still quite small.

...

Avo ripped out of his sleepport and moved weightless to the operations deck. The robot pilot monitored their position and the life systems. All other functions were dead. They could send microwave, but not receive. Their distress signal was heard all over space but rescue would be long in coming, despite Tasmor's polyman plans.

Already, those plans had jeopardized the remaining lives on board.

The torque twisting wreckage that killed Tasmor had torn away the high gain antennae. Avo and Hennings had rigged a sending beam on the seventh day. But so far they hadn't put together a receiving dish. And this crew so advanced in all space techniques!

Six were miners from the NATO group, all Earthmen with pictures of wives and children and grandparents pressed in plastic frames. Good workers, honest men who sent big credits back to Earth. Two were Americans, young, healthy, tireless and bound to become Martians, both of them, as soon as their visas were cleared. The two others were Moonmen who didn't like being called Moonies or Lunies and worst of all Mooners. It was Moonman or fight with those dudes, fantastic rock miners excellent with explosives, natural no-grav specimen who were also quiet, credit-wise, and not much interested in Mars or Earth. And then there was Avo . . . first officer and navigator, the one and only Martian, very soon to be a dweller.

There was no other way. Tasmor had set them on a rescue plan that was filled with Earth logic and this was outer space, the edge of the asteroid belt. Mars was way across the sun on the far side of its orbit relative to the position that the housebank was holding. There were sixteen other mine platforms in space, all save one plowing the uranium and cobalt strike in the

dense rock fields of sector 440. The other miner was a slim possibility if the damage to their own complex had been moderate, but this had been a major disaster. The machine was totaled and they were lucky, only lucky, to escape without more deaths. They could never reach the nearest miner without propulsion and scanner reception.

There was only one way from Avo's space-minded focus point. He would have to desert and he would have to go now. If he didn't he would be a dead man in a hollow, frost covered tank floating through the rocks with ten other dead men, all zipped neatly into their sleepers.

Avo took a long last look at the latest guidance print-out and logged the All-System position coordinates in his mind. Now was the time while the others were sleeping. He floundered to the equipment deck and donned his airsuit, then opened the inner hatch of the airlock, stepped in, locked it, and primed the vacuum pump. The outer hatch eased open and he pulled himself out into space. A thirty-foot, all purpose mini-tug was tethered to the frosty housetank hull. He unstrapped the restraints and pushed off, climbed up to the bubble of the jumpseat and popped it open. When he was seated at the controls, he pulled the bubble down and activated the air-pump. When the pressure equalized, he detached his space helmet and began his slow, quiet drift away

toward life and freedom. If his gambit was successful, he would survive the disaster and perhaps, Good Space, perhaps save the lives of the men he was leaving behind.

The mini-tugs were propelled by hydrogen kept under great pressure in cryogenic tanks. A small turbine, working from the same expanding gas system, provided the energy to spin the generators that turned out the electricity necessary to govern the craft and give it life. It was not a long distance vehicle. Its air and propulsion systems were limited, designed for work near the mining platform. They also served as life-boats on occasion but only for one man. There were twelve on the platforms according to regulations, although it was rare that more than two or three were ever used at a time; platform disasters weren't supposed to happen.

Avo spun the silver cylinder craft about and headed aft of the glistening housetank. There was a comsat-astrostation buoy three days back in space. If he could rendezvous with it, his gambit would succeed. Every space buoy had All-System communications on board as well as emergency air, food and water. It was regulation, a foresight seldom found in systems designed by planet grounders for men who lived and died in space.

He pecked again at his timer. In two and a half hours, the day-side lights would warm up and the sleeping men would emerge from their

nighttime cocoons and discover his absence. They would, some of them, curse him for desertion. Perhaps Hennings, the Moonie rock hunter would know what was happening. Maybe Pender, a spacewise mechanic from Oklahoma, would catch on.

The others would rely on planet-based rescue even though Earth and Mars were so far distant. They would keep believing it for a month or more until they expired one by one from despair or from a pill or from asphyxiation.

Even a three hundred foot sparkling white tank could disappear amid the rocks.

When he had drifted about and was far enough away, Avo fired the hydrogen jets and the clammy bubble-headed cylinder sped off into dark space. Three days would tell if he was a deserter or a medal winner. If he survived and they died, he would never again get a post on a corporate miner, never again be welcome on any NATO craft.

In moments of extreme life threatening situations a spacer was supposed to save his ass. That was law and ethic. He wouldn't be faulted if he survived the blow-out and disintegration while the others perished: one man, one life boat. However, he wouldn't exactly be honored, and would never get into space again on any Constitution craft.

"If the spacers pick me up and not the crew," he thought, "I'll

have to go rebel now unless I stay on Mars. I wouldn't exactly have much to do down there. Claim a disability or something." His mind was computing relative values. "I'd have to go rebel, if they'd take me on. The renegade Russians would hire me—that's for sure. A navigator with my trip record would get top credits." He liked Runkles in space. Good chessmen, no complainers.

Yet Avo was tangled in the webs of his own history. He was a moonborn child of five when his parents left Moonport Tycho on the first colony ship to Mars. His great-grandfather was a Moon exploration geologist. His grandfather an astrophysicist in the first moon colony, his grandmother a moon botanist. The webs of the past bound him to a certain sense of place in the vast regions of dark space and planet expansion. First Moon colony, moonborn, Mars colony child, a space navigator from earliest manhood; at twenty-two a spacehand on the first ice expedition to the Rings of Saturn when spacer Martians had proved that ice in ocean quantity was transportable, useable. That event had dissolved the Earth umbilical cord forever. If he failed to bring the miner crew home to Mars, he would end his life planet-board or a navigator for phreosacs.

Avo turned the video back toward the house-tank and watched it sparkle away on the monitor. "No way," he said. "no way they're gonna find that tank until maybe next year." The news of the blow-out was no doubt a hot bit of excitement in the Corporate headquarters on Marsport and personal concern, grief and worry in Crater. He knew the NATO rescue teams were scanning the rocks, but from a very great distance. The blowout of a billion-dollar space machine would be evening news for a few days on Moon and Earth. Consulates would exchange data, crew lists, cargo potential. The loss of unknown tons of chromium would sicken the stomachs of the corporate directors. Inquiries would have already been through preliminary statements. Theories as to the nature of the disaster would bound via microwave from Mars to Moon to Earth and back. But as yet very little would be happening in a rescue effort. Not yet. They were all so far away.

But the astrogation buoy was right ahead, somewhere in the rocks. He asked for the coordinates from the astrogator and opened the All-System guide communicator bands for a pulse. "The trouble with mini-tugs is that they are designed for close platform support. The microwave units are limited. Receivers too small and too directional." Avo made a note to report all that to the investigators. If he ever got to talk to them.

The mini-tugs could sustain a man for five days. The space buoy would keep him another week, perhaps two. It was up to the independent spacers if he lived or not. Up to the renegade Russians and their privateer American financiers. This region of the rocks was rich in chromium. There was sure to be a pirate floating around somewhere, sure to be a wildcat mine working a cluster of rocks somewhere. They all tuned in to the buoys set out and maintained by the Constitution.

Everyone had the right to navigate—astrogate they were calling it now. Everyone had the right to survive in space. He would generate all the rescue teams he would need. If only he could find them, and they could reach him.

Avo set the pulse generator sequence for the propulsion robot, extended the antennae mast and locked his guidance coordinates into the pilot. He knew he would find the buoy, day after tomorrow. He climbed out of the bubble-domed circular cockpit and went below into the tiny mini-tug house-tank. He touched the illumination panel, read a soft vapor light, and then stretched out the sleeper.

He would sleep in his airsuit, keeping the helmet an arm's reach away, too many mini-tugs took sudden punctures and decompressions for the luxury of naked sleep.

He zipped into the sleeper and floated back, letting himself relax in space fashion, slow peano breath-

ing dispelling tensions throughout his body, relaxing foot first, working upward giving advice to his muscles to stop doing what they were doing to cause tension; knees, genitals, abdomen, thorax, neck, back. He was soon in near-sleep. His body would be grateful for a good sleep.

His mind, however, was still a turmoil over his decision to leave the others behind. He had approached it in singular Martian-way logic. He was the only one capable of piloting a clumsy mini-bug through days of space and locating an astrogation buoy fifty feet long amid a mass of asteroid rocks. He was at that time senior officer, and pro-tem captain. The decision was correct. He hadn't needed the kind of group approval so common with Earthmen.

He imagined the disabled house-tank and knew the men were awake now, cursing him no doubt, squeezing the fear back down inside them, perhaps understanding what he had done.

Near-sleep began to quiet him. He saw the positive pole of his plan and locked onto it. He would save the crew. He would take rest from space and lay down on Mars awhile. Maybe he would go to Earth and read history for a few years. History was his personal joy. The long years in space had given him ample time to read the micro-film libras from a to z. But books! Real books in the library of a

university or a corporation, even a city! That was a dream he'd had since his days amid the Rings chopping ice.

After the rescue and the inquiry on Mars, he'd visa down to Earth for a time. He was rich enough in credits. Spacers had strange rumors of Earth. They said it was a filthy place and you could get any number of unmentionable diseases there, some of which turned your lungs black, some of which rotted your skin or made your hair fall out.

...

Avo had never been to Earth. He'd left Moon at five and barely remembered the blue-white marble in the sky. He'd heard that the air on Earth was so thick you could drown in it, so thick you couldn't see through it and that water fell out of the sky, sometimes for days on end. He couldn't really believe that last part. But he'd never seen an ocean nor a jungle nor a river in his life. There was more to the System than space.

After the rescue, he'd go down to Earth. He'd visit Pardoe in Oklahoma and ride horses. He'd read history books until his eyes fell out.

He knew Martians were rare on Earth. Six billion Earthpeople and only 152,000 total Martians, less than 1,000 down on Earth. Pardoe had told him that getting used to Earthgravity was just a matter of working at it . . . he'd have to take

calcium to strengthen the bones, and run everyday.

"Just a hundred yards for the first week," Pardon had told him. "two hundred the second week, then four hundred on up. By the end of six weeks you do a mile a day, hell's bells! Most Earthpeople don't do that! Then you work out with weights for six months especially on the legs, you got it made. You come on down Ok'lahoma and my Pa an' me'll work your ass off on our ranch. We got a herd of horses and cattle and there's hay to buck and barley to cut. Sheer. You just show up on Earth and call me. You got yerself a home!" Now Pardon was trapped in a frosted steel house tank with six NATO's and two Moonies and one other Mexican; the rolling hay fields so far away.

Maybe, when he was down to Earth, Avo dreamed, he'd find a few Earthgirls to bring up to Mars. They had them down there all sizes, shapes and colors!

He knew of a crater about one hundred kilos from Vandia, the Nova Mars colony, just south of the farthest reaches of the north polar cap, where the shadows sheltered a great bank of ice. The crater was maybe six kilos across, with one wall crumbled and a flat central basin filled with good glass sand. In the summer, when the pole tilted down toward the sun, enough ice melted to nourish a bloom of lichen that would cover the basin with a



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red and purple carpet six to ten centimeters deep.

He could go independent, neither rebel nor Constitution, set up a few domes with his Earthwives and live on his pension credits reading history. His wives could set up a glass factory and they'd make their own glasshouses and their own plates and cups. The icefield would give them water, energy in reduction to hydrogen and with the oxygen they could make their own air.

That was the Martian way, the dream of traditional Martian spacers. His mind reached sleep. He fell into dreaming planet dreams of plump, smiling longhaired girls of Earth.

Avo slept all through the second day. There was no need for him to awaken. The robotpilot kept the craft at speed and locked onto the course he had set for it. Sleep healed him and rested his mind. On the third day he awakened and stretched out of the sleepnet. He floated into the cockpit and checked his data monitors. A huge smile spread across his face. He had the buoy signal strong and unmistakable!

He computed twelve hours of travel time before he would have to maneuver and lock into the thing. Matching speed would be tricky, twenty-three years of space craft and he was topping his career off with a mini-tug and buoy.

If the mini-tugs had better communications gear, he might have been able to raise someone by now.

Twice in the past he had been in on rescues: once an indy wildcatter with plumbing problems causing a shutdown of their fuel rods; once a pirate Ruskie shot through with meteor holes. It hadn't mattered that they weren't Constitution.

Avo began to brake at the seventh hour, at the tenth he made eye contact with the blinking red strobe light, at the twelfth he began to match speed and rendezvous.

When he was simultaneous with the buoy, he fastened his airdhelmet, locked the houston tank hatch and pumped out to vacuum. He popped the bubble dome and floated out to space. He was about one hundred meters below the buoy; he'd placed the tug there to avoid the piercing long distance microwave beams. He tethered to the tug and pushed off, floating to the buoy, catching on to a ring hold. He had made it half-way.

Now he could send out the data on the blowout, the coordinates of the houston tank, the names of the survivors. He was sorry he couldn't include Yasmor on the list. He found the service hatch and popped it. The interior was alive with pinlights and electric humming.

The rescue effort took three weeks. Avo waited on the buoy for eight days before an indy prospector homed in and took him off. The indy ship wasn't big enough to hold the other crewmen, and was headed Mars-side anyway. Avo regretted that he wouldn't be going back to

the floating houseboat to spring his partners.

A roving rebel-colony mining platform crossed four and a half million kilometers to take the men on board. It was four months before they were able to transfer to a NATO patrol ship and ferry down to Mars.

Avo was waiting for them when they touched down. He had long since made his report and testified at the preliminary inquiry. Now that the others were down, he would have to do it again. The thin clear winds of Mars blew red dust devils across the landing strip. The shuttle came down gracefully, its great moveable wings spread wide, thrusters flaring in sequence. The touchdown was perfect.

Avo waited until the craft taxied into the cargo hanger, then went across the tarmac and slipped his titanium credit plaque into the robosecurity gate. He found a good vantage point behind the video crews, his slender 6'5" tucked near a service van. The outer hatches were popped and the men came down the portaramp. The video newsmen immediately pounced on the surprise news. . . . only eight of the ten returned! The two Moonies had jumped contracts and signed on with the rebel platform crew that had rescued them!

The NATO patrol commander

had classified the story in coded messages to Earth, but had not broadcast the change in status over the common communications. Harrings and Dasco had forfeited their lunar citizenship, forfeited their bank credits and gone rebel! Avo felt a racing wave of excitement break over him. The new colony was eager for accomplished spacers to man their mining craft. The Moonies were natural for recruitment, young men with no wives or kids and not enough in the bank, even to menschie moonies, to keep them from taking the leap.

The rebel mining effort had gained immeasurably from this disaster. A rich source of chromium was now coordinated, their own platform was now mining the sector, and they had gained two free-space demolition experts with immediate experience and corporate engineering degrees. Avo was more than just interested in the new colony, he was overwhelmed by its resourcefulness and spirit. He would get the whole story from the Maricans, Paedee and Rander. He saw Paedee's bright blue eyes flashing and his happy face crack open in a smile.

The video crews made a big deal of the touchdown. The news would speed to Earth and Moon without delay. The reunion of the latest space blowout survivors with the Martian who had maneuvered a mini-tag through three days of space, pinpointed their location and

effected their rescue! It was too much for grounder imaginations, even Martian grounders. The story would illuminate two billion video screens and fill pages of newspaper.

It would also be stored in microfiches, occupy the gossip of Corporate boardrooms and design labs, worry consulates and governments. The rescue had been carried out by rebels. Two otherwise reliable, skilled spacehands had jumped contract. The implications were too complicated for instant analysis.

Avo, Rander, and Pardee rode in comfort back to Marsport, sitting inside a corporate executive touring car. The vast cluster of ferro-glass domes danced in the pink haze across the crater floor. The Corporation was putting them up at the Damos Hotel and the attorneys and investigators were eager to get more of the details of the disaster. Avo had told his version over and over, but he was a Martian, given to little speculation and not much talk. The investigators would have a ball with the hard talking Mexicans.

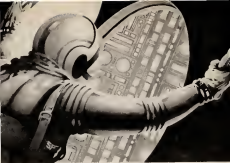
The NATO crew members went to NATO village as everyone had expected, the NATO's being a tight security group, tighter than even the Russians down in Yostolegrad. The video crew loved the six smiling NATO's with their handsome faces and symmetrical, well muscled bodies, and especially the photos they showed in the plastic frames of children and grandfathers, wives and cousins down on Earth. There

wasn't a lot of single Martian girls in this business and bureaucracy town, but most of them went out to NATO village that weekend. Over one hundred hands aboard the patrol ship came down for a week on the ground.

The cool faint sun was sinking pale red in the evening pink salmon sky. "Shoot," said Pardee. "Me'n Rander would of jumped, too. Except we already got Mars visas. I couldn't see losing the credits in my accounts, but let me tell you I gave in a long, long thought."

The three men sat in the garden bar on the fourth terrace of the Hotel. It was one of the tallest buildings under the dome and they had a good view of the corporation garden district from the windows. It didn't take them long to tie one on. Pardee and Rander hadn't had a drink in almost a year. Avo was smoking black lichen and drinking expensive tequila imported from Mexico. "You know we thought about it," Rander added. "We gotta keep it under our helmets, ya know? We don't know what's gonna fold over at the inquest. Corporation is pissed at the blowout."

"Yeah, it's a variable at this point," said Pardee. "The Corporation doesn't exactly know what's floating, see? Those NATO's have been strictly segregated. They couldn't do that with us 'cuz we're Mexicans, but we were on board the rebel platform for four months before the patrolter took us on. Let



me tell you those rebels got something together as far as space mining goes. The hands got a share of the tonnage swept up, and a share of the smelt. Besides that, they got some balls out there, Avo my friend, real balls. We seen 'em donate a chunk of rock twice as big as we would have dared tackle and sweep up every crumb of it."

"We was goin' to work for our keep while we was on board," said Rander, "but they advised us of their political situation real friendly and accurate. We had a briefing on video from one of their attorneys, told us the whole shot. He advised that we didn't work and the captain up there tol' us don't even bother worryin' about it. They wasn't about to smelt any of our credits even! But the NATO's they didn't

trust ahow! Wouldn't let them see any of their operations."

The smoke from the beady black lichen coupled with two shots of ineptitude had Avo spinning. He felt a sense he hadn't known since that first fantastic trip out to the Rings with the expeditionary flight. That had been a revolution in space travel. The Earthbound, scientist control of Man had been shattered. Something like that was happening again. More subtle perhaps, but a new energy was coming through. And it was coming from the break-away Vande colony.

The following morning, Avo was dreaming. He was floating through the icy tank miles long, diffused

with blue light. The dead face of Tassmer ghosted through the ice walls. He could see blood from the Earthman's crushed lungs frozen at the corner of his smiling mouth.

He awakened and saw the morning light at the window, felt the bed beneath him, looked at the plants hanging by the windows. He suddenly felt very old and creaky in the joints, not at all like a spacer celebrity, the subject of news reports and target of eager well-wishers.

The Hotel bar had been packed with handshaking businessmen and grounder bureaucrats. A dozen times he and Pardoe had their instantaneous photos snapped. At first he'd enjoyed the drinks offered and the pipes of black lichen. He'd never in his life had so much attention and he was too much a spacer to really enjoy it, always in space with only a small dome lodge down in Sandyville near Crater to call a planethome.

Pardoe soaked up the spotlight and took some of the heat off Avo with half a dozen rare tales of the months on the rebel platform, his ranch in Oklahoma and the delicacy known as mountain oysters. Rander caught the eye of a supple young lady on leave from the equatorial weather station. They cut out before midnight. Avo and Pardoe got too drunk to handle any women, although there were several rare beauties in the bar. Avo was thinking of women more and more often now.

The morning light spread into the room. He had never spent a night in such luxury. The bed was wide and deep with soft sheets and fat pillows. It was a giant room with tall windows and a balcony. "Exec's life is soft," he murmured. "No wonder they all look so polished, buffed over by ecstasies between soft shoes is why."

He stretched. The Marsgray nugged at him a little and pulled him down. He had to get used to things falling. He was still picking things out in the air like a glass or a pen and being startled when it fell to the floor. Even with six months down, he was still in weightless space. Six months was the longest he'd stayed down in twelve years. He was feeling thick in the head from the tequila and very old. It was time to make new plans, somehow, but he couldn't think what. Avo reached for a ginseng-vitamin pill to ease his aching hangover and lay back to sleep until noon.

The videophone was calling him. Avo awakened again and snapped on the monitor. It was Pardoe. "Get yer ass outa bed, spaceman, and come on down to the sauna. I got some news for you."

"What news?" Avo murmured. "I'm not getting up."

"Cain't tell ya on this system. Meet me down in the sauna. Come on now, it's important."

Avo hadn't been figuring to leave his room until hunger drove him out. But the invitation to the sauna

sounded good and the added spice of some Earthman intrigue was too much motivation to resist. He stood up and found a clean jumpsuit, slipped on his desert boots and went out to the elevator.

The sauna and exercise spa was on the ground floor across the eucalyptus garden from the pool. There were only three pools in all of Marsport and on weekends this was a popular social spot. Avo had figured to hang out there on Sunday to entertain some single young ladies. He crossed through the lobby and out into the fragrant garden. Eucalyptus grew well in Martian soil.

Pardee was waiting for him in a private box. Avo showered first and, wrapped in a thick velvet towel, stepped into the 180° heat. Pardee sat naked on the beach holding his head.

"That fichen I smoked kicked my head from here to Euclidus. Sit down, bro," you ready for some tales?" Avo really wasn't. The politics and leverage games that went on between the three inhabited worlds had never really interested him. Pardee took a deep breath. "I had to meet you here because I don't trust the hotel phone system. Rander split this morning with that meteorologist! Yesterday afternoon, as soon as we checked in here, he slipped out to a bank and got his credits transferred Mars-side. Like I tol' you we both already got Mars visas. This morning, the transfer

comes through, he draws it all out and him and the girl take off! To Vandis!"

Avo's head was clearing fast. The only place to take off to on this planet was to the new colony.

"He's gone over to Vandis? What about the inquest?" He realized it was a dumb question. Rander had other things on his mind. "There ain't gonna be no inquest. Least not here. I had an Earthman CBI team in my room this morning trying to find out if I was going to run, too. I had to claim rights to get them out. The Corporation is getting set to file sabotage charges."

"Against who?" Avo asked quickly.

"Ain't sure yet. The NATO's have redereed their crew back to Moon. They refuse to meet interviewers. It might be a showdown between the Corporates and the NATO's."

"They always stick together," Avo calculated. "They're gonna try to take the NMC at Vandis and blame them. Then they get the embargoes enforced, see?"

"Could be. I can't tell, being basically dumb at politics. But somethin's goin' down and I wanted you in on what I know."

"The CBI can't question me without a civil justice warrant and they can't get that. Martian spacer rights are tough to violate. But I still ought to get an attorney just in case any charges come down—neglect of duty or something. The

truth is I don't know what caused the preliminary explosion. All I could tell them was about the stages of the breakup afterwards. And Tasmor's death."

"Hennings made a report about that to the NMC manager. So you're covered good on that one. He will make that report available if you request it."

"Since I've been down here several months, there's probably no worry about me going over. I'm first colony anyway. My Martian rights citizenship would make it impossible for CBI to extradite me for anything. Trouble is I was seriously considering a trip Earthside."

"You were?" Pardoe was beaming. "Listen, you got to come visit my folks and all."

"I was figuring I would. I want to see what Earth is all about for myself. There's damn few Martians ever been to Earth. I thought I'd lay out down there a few years. Read history, find a wife or two."

"Find some women?" Pardoe laughed. "Why, Bro,' do you have any idea how many thousands of Earth girls would marry you just to get up to Mars?"

"Thousands?" Avo wasn't going for the number.

"Thousands!" Pardoe repeated. "It's the mystique. Spacers are rare birds. I can't tell you the fascination most Earthpeople have for spacers. Even a platform mechanic like me."

"I wanted to be in space since I was six years old. I been expecting

to go Martian these past few years, bring my wife and kids up here. Hey, the best astroglation and piloting schools are on Mars these days. Mars is the future world, far as space goes."

"You come on down to Sandyville with me," said Avo. "If there's no inquest, there's no need to hang around here. Down there I can show you some real Mars. I got my lodge down there and we can trip out to the desert. Mars is a place just beginning. Let's enjoy the Corporation's hospitality today. I want to get in that pool this afternoon. Tomorrow morning we'll catch the shuttle down to Crater."

• • •

Sandyville was a spacer enclave tucked into a low escarpment due west of Crater. Avo and Pardoe boarded the first shuttle in the morning, making the four hundred kilometers flight to Mars' second city in half an hour.

Crater was more populated than Marsport, being a center of spacer activity and independent mine organizations. The crater it sat in was fifty kilos across and the rim wall, banded pink and red, curved around in a jagged ridge that varied from two thousand to more than one thousand meters. All manner of trade goods changed hands at Crater: air packs, dome kits, assorted vehicles, mining equipment, spare parts for a thousand and one

machines, vegetables from outlying glassfarms, fertilizers, seed, farm implements, glassware, clothing, sand boots, imports from Moon and Earth, carved ruby, Martian metals, black lichen, contraband of every description, families, children, beautiful slender girls, myths, legends of the colonists, well kept saloons and wild, wild stories of space, asteroids and the dunes of Mars.

"The story about the man, Vandin," Avo told Pader as they sat shoulder to shoulder in the tight seats of the shuttle, "is the story of the original independent exploration of the planet. Vandin broke away from the clutches of the scientists almost a century before the Rings Expedition. Everyone thought he was dead for ten years after he disappeared from the First Geological Survey. Marsport was the only base then. Totally military-scientist controlled. Vandin believed Mars would support a colony and predicted that humans would live here, prosper and break away from Earth-scientist domination. He explored the entire circumference of the north polar cap and built his own water and air makers."

"So, that's why they call the NMC colony Vandin," said Pader.

"Exactly," Avo continued. "Vandin became expert in dry land ecology in the days of his explorations. Most of the mystery legends come from him and his first followers."

"Like the Lost Martians, the dead city on the equator, the dune creatures and all that?" Pader was as wide-eyed as a space child of six.

"Right. Vandin came back to Marsport ten years after he had been declared dead. The military tried to assassinate him. He scared them to death! He came in at Marsport one morning on the tail end of a sandstorm. Everybody thought he was some kind of true Martian creature. In a sense he was, the first Earthman to live on Mars. On Mars alone without Earth-supplied existence. He did what was said to be impossible."

"Instead of welcoming the man back as a visionary and a hero, they jailed him! He was a terrible threat to the safe little scientist base. They didn't want anyone coming to Mars except their own people under strict supervision. Two of the younger members of the enclave, an astronaut captain and a young female geologist, sprung Vandin out of the jail that the base commander had constructed just for him. They disappeared and walked away into the desert. The commander went out after them, but never found a trace. So for the second time, this one classified for twenty-five years, Vandin was declared dead!"

"The three explorers knew they would be discovered if they stayed near the polar cap so they turned south and set up several bases. After a year, several more people

from the enclave disappeared, along with various pieces of equipment. "Gone to Vandis" was the term that grew up to explain it. And every year after that, top flight people would desert. Soon there was no denying that Vandis was alive with his followers, somewhere on Mars.

Pardon was watching the ragged dunes and red walled craters flow past below the round window next to his elbow. The Vandis legend was a myth of his childhood but here he was flying over the very territory that the first Martian ecologist had surveyed.

"The greatest Vandis tale, to me anyway, is the Ruby Caverns," Avo added.

"Somewhere down in the equator belt is a square of lost caverns. The Martians had used the caverns as a storage bin for the last traces of their society. The legend says that Vandis is still alive and down there with them. It could be, you know, the equator has been extensively mapped and photographed, but actually explored very little. The sandstorms are incredible, water factor just about zero. But there is no doubt there is just as much ruby there as anywhere else. Whole mountain ranges of ruby."

Ruby was the first big discovery on Mars, one kept secret for decades from fear of its economic impact on Earth. For 150 annuals the scientists who controlled Mars maintained a rich monopoly in a

ruby trade. Mars ruby was highly adaptable for industrial use in all manner of lasting devices. It was so common on Mars that entire cliffs and miles of eroded ridges were composed of the hard red carbonadium. A lively legal trade in carved rubies for jewelry had gone on since the days of the first colony. Martian craftspeople turned out plates, cups, goblets, paperweights, necklaces, sculptures, all manner of artifacts for sale on the three worlds. The money managers of Earth had strict tariffs on all kinds of Martian goods. Especially carved ruby. But Earthpeople were so rich now that practically every household had some Martian ruby product in it, as well as Martian glassware. The sands of Mars were especially suited to glass making.

Avo's lodge was little used and poorly tended, not much different from dozens of spacer lodges spotted around the Sandyville enclave, just a thirty-foot house dome within a ninety-foot glass air dome. But it was his.

Avo had yet to take wives, not uncommon among veteran spacers, who usually settled in to a planet-home around forty-five or so. Avo had known a beautiful Martian girl as a lover when he was on the Ring convoys, but she had died at an outpost weather station during a

ferocious sandstorm, so many years ago.

Pardoe was an immediate success in the enclave's social life. Real Earthmen were uncommon outside Marsport. His tales of hay fields and horses astounded the veterans and children alike. His thick frame and multiple tattoos fascinated the Martian women. It was clear that he could easily add as many more to his family as his Earth wife would accept.

After five days of done cocking he declared, "I'm going home for one last time. Avo. Pack up my family and go Martian. I know I'd be doin' it someday. Since I was in astro-engineering school. My wife knows it, too. We can make it up here."

Avo nodded. "You can go independent here. I know a crater up north that's half filled with ice. I can build a lodge there and an air maker, put up planehouses. I can, we can, get an independent mine contract, finance a platform . . . you can set up planethome here."

"I can see it all," said Pardoe. "It could really work out. We can get finance down in Oklahoma and Texas in a hot second; that way we can open an Earth-Moon trade line. Long as we don't sell out completely, it will be our own trip to manage."

"No corporation bosses to tell us what to mine or where to mine," Avo replied. "Only a tenth of the

second belt has been prospected. We can trade where we want, Vaudis or Crater or Moon. Just one year out, maybe two, and we'd pay off any investors real handsome."

"It's done!" Pardoe leaped up and looked out over the shifting miles of low dunes. "I'll get us some investors that'll make your head spin."

Avo returned to Marsport with Pardoe on the weekend shuttle. Pardoe had enough pull to get a booking to Moon on the first ore freighter. From Moon there was an everyday transit down to Earth. "Don't let your sea suit away up here, now," Pardoe pointed a finger right at Avo. "You come on down to Earth as soon as you can book transit. We're gonna do some business, partner."

"I'll be down in maybe four months, five months. What I can do up here is find us a platform to rig out. Lots of the wildcaters are old now, need first class refitting. I can contract one from Crater, no sweat. Then we'll have to lease a transporter . . ." Plans and ideas filled his mind. The prospect of starting new thrilled him with the same kind of excitement he had felt so long ago when he was standing on a five-mile long chunk of ice floating through the Rings above the monstrous orb of Saturn.

The black shuttle screamed off

the runway carrying Avo's new partner away into space and to his rendezvous with the ore freighter which would carry him home.

"Home is a place where, when you have to go there, they have to take you in," Avo said, recounting the lines of an old Earth poet. "When I got down to Earth," he thought, "I've got a place now; Oklahoma, wherever that is." He made a note to check an Earth Atlas in the Corporation library back at Marsport.

His return to the capital was less conspicuous this time. He caught the public van and rode in silence toward the shimmering cluster of domes. He had an interview that afternoon with the Chief of Mining Operations during which he had decided to make his resignation.

The Corporation's SpaceMining complex was a marvel in architecture with its own security dome set under the city's massive community air dome. A small forest of conifers and mountain Earth shrubbery were landscaped into Martian boulders and massive ruby conglomerates. The buildings were soft pinkstone and stainless steel with blue Martian marble floors. Water, the ultimate luxury on this dry, dusty planet, spurted from a dozen fountains. He walked across the inner courtyard set with cool green grass and took the escalator to the CMO suite. His welcome seemed cool and somehow overly correct.

The chief was an Earthman en-

gineer. A grounder with limited space experience, he was a deft administrator and organizer. Avo didn't get a chance to resign. "What's been decided, Earthside, Avo, is to accelerate your pension date and give you a much needed rest. I want you to know it was not my decision, nothing unilateral about it. You know, with things in such a state of unrest, as far as Vanders and these renegade Russians down south, Earthside is overly concerned about security of the platform. It's not your own personal loyalty, just a lack of understanding. What they don't want is a whole platform going over to Vanders, leaving the Constitution jurisdiction and precipitating legal action.

Incidentally, I am empowered to give you this meritorious credit certificate for your part in the rescue, which was entirely your show from my point of view. And finally," the Chief stood up from behind his desk and handed Avo a slender black box. "Go ahead," the Chief beamed. "Open it." Avo snapped open the lid and stared at a gold digital wrist watch. "Last you a lifetime," the Chief claimed. "I've got one just like it. It's just a token, Avo. Just a token. It gives Earthtime, Moontime and Marstime." Now if there's anything I can do personally to aid your transition . . . any references or such, don't hesitate to write."

Avo stood up quietly. "Well, I

was hoping perhaps I could use the library here when I'm under the dome. For awhile anyhow."

"Certainly," said the Chief. "I'll have the security section issue you a pass. We have the best microfiche on Mars, you know." Avo shook hands with the Chief. They both smiled and neither said anything."

A month later, he was watching the stars pop up, clear and frosty, over the rim of his crater. The great bank of snow and ice that partially filled the high northwest wall glistened in the shadow. He thought of the ice that had condensed around the floating house-tank after the blowout, now a year gone by.

He snapped open the face mask of his unpack and took a puff on a pipe stuffed with black lichen, then lay back on the red sand. Earth and Venus were bright against the blue-black sky. Venus was so much the brighter, so stark white and brilliant she seemed much closer than Earth, which was twinkling blue and green.

He imagined himself in a library somewhere down there in a city next to the sea. He imagined plump, longhaired Earthgirls swimming naked in the waves. He blew out the lichen smoke and flapped the face mask back in place. Earth glittered in the evening sky. He wondered if he was looking at Oklahoma.

★

AND EARTH SO FAR AWAY



Postscript to GATEWAY

WHEN I SUBMITTED the manuscript of *Gateway* to Jim Baen for *Galaxy*, I warned him fair and square, I did. I said there were some problems. I told him that, not only was it pretty complex to be broken into serial installments, and typographically a nightmare besides, but I was still tinkering with it. And so I was. I rewrote it completely after that first draft, particularly the ending. I don't know how many times I revised that. What I do know is that after I was completely through with it (or thought I was) and had turned in a complete manuscript, I then had second thoughts and decided to omit the very last (and very short) chapter.

Now that the book is in print, comments and reviews have been coming in. I must say they have been extremely kind, by and large, but more than one of them has commented that the ending takes some getting used to. And now Jim has asked me to let him publish that omitted last chapter, and along with

it to try to explain what was going on in my head.

I am going to try to do this. But because I embarrass easily, let me say something first. Producing a book is a lot like producing a baby. Everybody knows what has been going on, but it does seem very delicate to talk about it explicitly in public. So bear with me, please, dear friends, while I try to do this public flashing as gracefully as I can.

Besides being a novel, *Gateway* is an attempt to try to do something I have wanted to do for a long time: to say everything I knew, about a world I had made up.

All science fiction writers invent the worlds their characters move in, of course, and in the course of doing so most of us figure out more about them than we ever put on paper. If you ask Larry Niven about the Kzinti, he can tell you details of their dreams and their breeding habits that have never been published. So can Gordon Dickson

about the Dorset. So can I about most of the characters and settings I've used.

The reason that not all of this backgrounding gets into print is not because the authors want to keep secrets from the rest of the world, but because explaining too much slows down the action. Science fiction readers already accept much greater demands on their imagination and intelligence than the readers of most fiction will sit still for. But there is a limit to even their patience. Past a certain point, they don't want to hear any more talk about why a thing is, they want to get on with it.

Consequently, one of the Great Good Things about science fiction is just that it does build these interesting and colorful new worlds for us to roam around in in our imaginations. I imagine most of us have fantasied from time to time about living on Barsoom or Ozsome, or in any world that some writer has given us a passport to.

The experiment I wanted to try was to make that whole world as complete as I could. To say about it everything that I knew to say. Not just enough to account for why the characters behaved as they did. Not just the physical parameters. The habits, the clothing, the recreations, the constraints, the sensory inputs. Much of that can be done in ordinary narrative, and here Robert A. Heinlein is probably the father of us all. Some can't, not even by Hein-

lein. And to get this in without requiring the characters to tell each other things endlessly I adopted the device of "sidebars." I do not claim it for an invention, it is a technique of journalism. But I do not remember having seen it used in just that way in any novel. John Dos Passos had done something like it in 1919, a long time ago, by using newspaper reports, an innovation picked up and carried a step farther by John Brunner in *Stand On Zanzibar*. I had experimented with the concept, from a somewhat different tack (only to provide biographical detail about some of the characters) in a not very successful "mainstream" novel called *Presidential Year*, which I wrote with Cyril Kornbluth in 1956.

For *Gateway*, it looked like the device that would do what I wanted done. So for a year or more after the novel itself was essentially complete I found myself composing poems, classified ads, letters-to-the-editor, mission reports and all sorts of other data inputs to be inserted into the work. I travel a lot, I almost always carry a portable typewriter with me (it is my security typewriter, I am uneasy without it), and so I wrote little bits and pieces of sidebars in all sorts of places: in the TWA lounge at O'Hare Airport, between sessions at any number of college lecture dates and if coes, on trains, in a hotel room in Toronto in the intervals on a week-long commitment to CBC

Television in connection with the Apollo-Soyuz hookup... everywhere. I have a very clear memory of the expression on the face of the maid as she came into my stateroom on Cunard's liner *Adventure*, somewhere between islands in the Caribbean. I had laid out clumps and sheaves of pages on every flat surface in the room—beds, chairs, floor—trying to piece together my jigsaw puzzle. She wanted desperately to make my bed. But I couldn't let her, because I was trying to make a novel.

I don't promise that this is the best way to write a novel. (If anyone ever finds out what the best way is I wish he'd tell me.) But in this case it had advantages. The world does not look the same from the deck of a ship, or from an all-night diner across the highway from a motel, as it does from my writing office, on the top floor of an old monster of a house in New Jersey—I think some of those differences in perspective must be reflected in the sidebar.

At any rate, the time came when somehow I had patched all the pieces together and was into the final revision on this rather demanding chunk of my life. Then I discovered that *Gateway* had taken its future into its own hands. It wasn't a single consecutive story anymore. It wasn't even the two stories that ran concurrently, the analysis sessions threaded into the straight narrative of Broadhead's life. It looked

to me as though it were coming close to turning out to what I had wanted it to be: a world.

Well, all right. But how do you end a world? A novel I usually can figure out how to end. In fact, I know a lot of ways. Usually there is one that fits. The choice of the right one depends on what is the main thrust of your story. At one time I had considered that the main thrust of *Gateway* was the color and terror of the black hole. (The working title of the book, in fact, was then *Beyond the Blue Event Horizon*.) At another I had thought it was the personal story of Robinette Broadhead. At still another, as the computer-psychanalyst Sigfried von Shrink seemed more and more important, I thought maybe it was even his story. For each of these I could see an ending, but all of them were wrong for *Gateway* as it had evolved.

Well, you already know (if you've read the story, that is) what decision I finally made.

Is it right?

God knows. It's the rightest I could make it. For better or worse, that's where I stand.

Nevertheless I think it rather astute of the reviewers and others to have noticed that there is something unusual about the ending. And for any readers who are interested enough to have stayed with me this long, here is the brief last chapter that I removed from the novel—just for fun.

"What is so rare as a day in June? A beautifully written, entertaining book. Such a book is *Fred Pohl's Gateway*, a fascinating science fiction story and a highly crafted look at the nature of a man. . . . *Robinsciv*

Broadhead. . . . *Pohl* paces the novel masterfully, so that the revelation of the action coincides with *Broadhead's* personal revelation. The only possible weakness of the book lies in the speed at which the final events take place. It is not unlike waiting in line for hours to see a work of art, and then being whipped past it without having an opportunity to study it. That moment is an awesome one, something worth lingering over. But the very real necessities of the plot require otherwise, and the story is really about *Broadhead*, not that brief moment of scientific wonder." — *Delap's F&SF Review*.

"... a wonderfully original analyst-and-patient co-starring. The analyst is a computer named Sigfrid von Strink, and the patient is the wiser-widder, fabulously wealthy lone survivor of the most monstrous disaster in the history of the Gateway ships. The sum total is a sort of ragged, irresistible brainiac display, marred by a misproportioned ending but full of utterly splendid invention. Major Pohl, and one of the season's more worthwhile events." — *Kirkus Newsletter*.

Under the bubble the line of afternoon sun was warm and gentle. It was late, but I went right to the club shower, plunge, ten minutes in the sauna, and when I came out I was ready for my date with S. Ya. I was more than ready. I was looking forward to it. Not only for S. Ya. herself, pretty, intelligent, kind as she was. I wanted very much to make love to her, but I also wanted to talk to her.

All that stuff Sigfrid was giving me—was it his crazy electronic fantasy? Or was it real? S. Ya. would know, or at least know enough to talk sensibly about the possibility of laying machine emotions onto machine intelligence.

Oh, I had not forgotten Klara! She was still in my heart, as much as ever—more than ever, because underneath the pain and the guilt were the tenderness and the love, that I would have for always, whenever real-Klara was.

I have all my parts back again, I am whole and as well as any living thing is ever going to be. . . . which, I decide, is good enough for me. I have even got something I want to do! I owe Sigfrid a favor. He healed me.

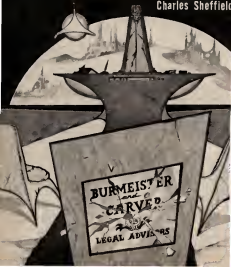
Maybe, with a little help from S. Ya. and the Grace of God and Good Fortune, I can make at least a start toward healing him. ★

[THE END]

Who would have
guessed that Waldo
could be so
... forceful?

Perfectly safe, nothing to worry about

Charles Sheffield



"A BIT LOWER on the left. Bit more. There, that's it. Hold it right there."

I held it as Waldo directed and he drove in the last nail, then stepped back. Perfect. We looked at the sign and beamed at each other.

"Burnmeister & Carver—Legal Advisors." The old firm, a long way from Washington D.C., but back in business again.

We went into the office and closed the door. Not much space inside—it cost ten credits a square foot, unfurnished, for rentals in Thauria City. But we had one respectable-sized office, and a much less fancy office/utility room behind it. We'd agreed to take turns manning the front office until we built up enough business to spread ourselves a bit. As the first and only lawyers on Mars, we were sure that wouldn't take long.

I went back to my desk in the rear office—Waldo was taking the first shift out front. Then I came straight out again. Fifteen minutes earlier there had been a jelly doughnut on my table. I looked at Waldo and began, "Waldo, did you—?"

What was the use? I gave up in mid-sentence. In the twenty years since we left law school I'd seen Waldo swell from a youth of sylph-like elegance to a first-order man-mountain. The time he'd spent (more accurately, done) on the Venus terra-forming project had thinned him, temporarily, but as

soon as he reached Mars he'd started to swell again. I'd bullied, insulted, capoled, lectured and warned Waldo. If he kept on eating the way he did, one day he'd explode. He listened contritely, swore he'd diet at once, implored me to keep sweet stuff out of his reach and thanked me for trying to help. Then as soon as my back was turned—chomp.

As it turned out, we had been over-optimistic about the number of cases that would come our way. True, we were the only lawyers for forty million miles, and Mars did have a population of several thousand. But—no business. I maintain that where a barbarian would pick up a rock or a tree root to settle a dispute, a civilized man picks up a videophone and seeks legal counsel. Measured by that standard, Mars was too busy scrabbling for survival to qualify above the barbarian level. For the first three weeks I had little to do but sit about, watching Waldo occupy a steadily increasing amount of the available office space.

When our first client finally arrived, Waldo was manning the front desk and I was sitting in the back office looking at a lunar travel brochure. Waldo collected them. I was reading a poetic description of a valley of mud, dust and rock when I heard the door of the outer office.

"Are you Burnmeister and Carver?" asked an unfamiliar voice.

"We are. I am Waldo Bumcister, at your service."

"I'm Peter Pinton. I've got something extremely valuable here and I'd like to leave it with you to lock in your safe."

Waldo's visitor seemed to be confusing us with a bank. We didn't have a safe, just a big cupboard in the back room with a defective lock. I sneaked a look through a narrow crack in the ill-fitting and badly made door between our inner and outer offices. Our visitor was very tall and lanky, with brown hair and a pair of innocent and startlingly blue eyes. His dress told me that he was a ranger—probably a geologist, roving around outside the domed city areas. Waldo had responded instinctively to the words 'extremely valuable' and had Pinton already seated in our one comfortable chair.

What would it be? Precious metals, old artifacts, Martian superflasks? I could almost hear the cash registers ringing in Waldo's head.

"In our safe, Mr. Pinton? Of course. Where is your deposit?"

Waldo hadn't missed a beat. Pinton reached into his brown, bulky jacket and produced a small phial, about the size of a pill bottle, containing a pale, oily-looking liquid. Since Pinton couldn't see me I felt free to register my disappointment.

Waldo looked at the bottle dubiously. "What exactly is it, Mr. Pinton?"

"It's Pontonic, that's what it is." Our visitor smiled happily. "It's going to make me the richest man on Mars. I always suspected there should be something like this here—I've looked in places where the geology is right for ten years, and I've finally found and refined it." He held up the bottle. "The most powerful chemical explosive ever known, by a factor of ten. One gram's enough to blow a ten-meter crater in solid rock. It'll revolutionize mining on the asteroids."

Peter Pinton must have noticed Waldo's lack of enthusiasm at the idea of looking after a super-bomb. "Perfectly safe, nothing to worry about," he added. He shook the bottle with great vigor.

I screamed so hard that no sound came out and clapped my hands over my ears. Waldo, with an equally sound protective logic, covered his eyes with his hands. Pinton cackled insanely. "Perfectly safe. Only explodes under very special conditions. Safe as water."

He reached into his jacket again and produced a five thousand credit note. "Here's a down payment. I'll need your help when the time comes to negotiate on this with General Mining."

Now he was talking. I breathed again, but Waldo still seemed curiously reluctant to touch the phial or the money. I decided that it was time to introduce myself to our new client.

I had second thoughts as I came into the room. Peter Pinton was offering the phial to Waldo with his right hand and absent-mindedly scratching himself around the ribs with his left. No wonder Waldo was hesitant. I've read a hundred theories as to how Earth fleas evaded pre-flight inspection to get to Mars, and I don't believe any of them. But when you've seen how far a flea can jump under a surface gravity only two-fifths that of Earth, and with an atmosphere as dense, you have no trouble understanding how they've managed to spread the way they have. I could detect ripples of sympathetic itching running up and down Waldo's back. As Peter Pinton and I shook hands and he gave me the money and phial, I watched him closely for emigrants.

Pinton seemed relieved to be rid of the bottle. "I told Muriel I wanted somebody else to look after the Pintonite this morning. I'm not comfortable carrying valuables in the domicile. I feel a lot easier now. Well, I'll be off. See you in a few days. I want to hear what Muriel says when I tell her you're looking after the Pintonite."

"Your wife?" I asked politely.

He looked at me curiously. "Now what would a man want with a woman, out in the red ranges? Muriel's my parrot." And he was gone without further comment.

Waldo took a big gulp of un-

sweetened coffee absent-mindedly as Pinton left the room. His face puckered like a punctured Mars dome. For the past couple of days he'd been holding down on his calories and we'd thrown out every temptation. The change so far was imperceptible.

I locked the money in our cash box and went through to the inner office to put Pinton's phial into the big cupboard, in among the crockery, stationery, low-caloric food items and legal reference volumes. I put it on the bottom shelf, next to Waldo's weighing-machine. He'd bought a spring balance, and derived comfort from the thought that he weighed less than eighty kilos—his 'college weight,' as he described it. I wondered if he was looking at lunar brochures for his next stopping-point when his Mars-weight topped eighty.

In the front office Waldo had a dreamy expression in his eyes. "If General Mining would pay Pinton a million credits for the rights to Pintonite, I bet that United Chemicals would offer double."

I nodded. We discussed it no further. As Disraeli remarked, sensible men are all of the same religion. And pray, what is that? Sensible men never tell. Substitute "financial views" for "religion" there, and you have my attitude exactly.

The next time Peter Pinton showed up at the office I was on my own. Waldo had gone off for a meeting 'with an industrial group'

and I had not asked for details. Pinton sat down with the neat movements of a man who spent most of his life inside a three by four meter domicile—the standard house/mobile lab/explorer vehicle of the Mars rangers. He took a small jar of white crystals from his jacket pocket and placed it on the table.

"Version two," he said. "Purified, ten times as powerful per gram. Take this for your safe and give me the other one back—I need it for a little demonstration later this week."

I hesitated and he misunderstood my reluctance. "Oh, it's as safe as the last lot. Under any normal circumstances, perfectly neutral. See here." He unscrewed the top of the jar, licked his finger tip, dipped it in the white powder and stuck it in his mouth. He grinned happily as I goggled.

"Perfectly safe. Want a lick? It doesn't taste of much," he assured me. "Sort of yeasty and a bit sweet."

I declined the offer and went reluctantly through to the inner office. I closed the door—so Pinton wouldn't see the non-existent safe—and opened the cupboard to get the phial. Would it still be there? Thank heaven, it was, just where I had left it. Perhaps I had misjudged Waldo's meeting. Feeling much happier I placed the jar of crystal Pintonite in the cupboard and gave his phial back to Pinton. I sat down again behind the desk.

Pinton seemed in no hurry and in a chatty mood, and I wanted certain information from him.

"Occurs naturally on Mars?" he said, repeating my question. "Yes, in crude form. Now that's not surprising—Mars has a different geological history from Earth, so we expect some different compounds. Pintonite's an isomeric hydrocarbon-fluorocarbon form—just as diamond is a form of carbon, created under special conditions in the history of the planet."

"You mean you could make Pintonite from other things, the way we make diamonds?"

"Sure—if you know the chemical structure and were smart enough, you could synthesize it. But why bother? There's plenty here on Mars if you're smart enough to know where to look and what to look for." He pressed himself. "You see, the thing that makes Pintonite so powerful is just an unusual hydrocarbon bond. It's like a compressed spring, with a catch on it. Unhook the catch, and all that energy in the spring is released. The secret's in the chemical structure."

"And that can be found by measurement?"

"Sure. Any run-of-the-mill lab could do it. That's why I wanted to have it here, where it's safe, and not where the industrial espionage boys could lay their hands on it."

His simple trust in the legal profession was touching. My suspicions that he was a little cracked

were growing. As he left, those suspicions were given a strong boost by our neighbor along the corridor. She was a youngish, talkative mother of three, with a husband who worked the day shift outside the domes in the open-field agricultural area. According to Waldo, she fancied me—by comparison, I suppose—but I had so far survived with my honor intact.

As Peter Pinton departed she came along the corridor and looked into the office. Her hair had so many curlers in it that she seemed to be wearing an elaborate bronze headpiece.

"What's old Pete been doing in here?" she inquired. "I haven't seen him for a year or two."

"Legal matters, Mrs. Wilkinson—I can't betray a client's confidences, you know. Where did you meet Mr. Pinton?"

"Oh, me and him had a thing going for a while. Never got too serious, though. He was always too busy during the day—not like you lawyers." She peered and eyed me speculatively for a few moments. Gambit declined, she went on. "Anyway, I got a bit tired of him after a while. He was always going on about his bloody parrot. No wonder they all called him Looney Pete."

She turned her head back along the corridor, revealing the full splendor of her comely helmet, and shouted a snappy reply to a child's question. Then she smiled at me al-

luringly. "I'm just going to have a cup of coffee and a little something to go with it. Mr. Carver. Perhaps you'd like to join me?"

As she raised her plucked eyebrows inquiringly, Waldo's familiar figure loomed over her shoulder. I looked at him with relief. She gave him a savage glance and then disappeared down the corridor. Waldo was in excellent spirits. I wondered just what he'd been up to. Well, regardless of that I had work of my own to do now, as soon as I could find the right place to help me. But I must admit that I didn't feel comforted by our lady neighbor's report on our client, Mr. Peter Pinton.

...

Neither Waldo nor I were particularly alarmed at first when the Tharsis City police arrived. Our licenses were in good shape, and our credentials to practice law on Mars impeccable. As the only two lawyers on the planet, we had framed the bar charter ourselves.

Police Investigator Levante had with him a saturnine, dark-haired man from General Mining, a double for Bela Lugosi in the classic Deceits 2-D movies, whom he introduced to us as Test Supervisor Kozak.

Like most Martians, they seemed puzzled by what Waldo and I actually did for a living. We explained our activities and they dutifully recorded them with a slight air of dis-

belief. After the general introductions Lestrade cleared his throat, scratched his thinning pate, and got down to business.

"Yesterday, Mr. Peter Pinton gave a demonstration of a powerful new explosive to General Mining. Mr. Kozak supervised the test." Lestrade spoke very slowly, picking his words with care. "Now, we would like you to tell us all that you know about that explosive, Pintonite."

He stopped. We waited. No more words came, apparently he was done. I was puzzled by his accusing manner and wondered again if Waldo had been up to something.

"I think there may be a misunderstanding," I finally replied. "We know very little. We're not geologists or chemists, you know. You want to talk to Peter Pinton himself—he's the expert."

"You can ask him," said Lestrade morosely. He placed a silver box on the desk, about the same size and shape as a portable communicator. I looked at it for the send/receive button but couldn't see it. I looked questioningly at Lestrade, who pressed a catch on the side of the box. The top opened to reveal a layer of grey powder inside.

"There's Peter Pinton, all there is of him," Lestrade looked at the box with a certain macabre satisfaction. "When he brought in his explosive, with his claim that it was super-powerful and completely safe, Mr.

Kozak insisted on a controlled demonstration. They put Pinton inside a sealed metal tank to set up the test and watched from outside. Pinton was half right, you might say—it's far and away the most powerful explosive anybody has ever seen. But Pinton hadn't told anybody the chemical formula for it. Mr. Kozak came to see us after the explosion yesterday afternoon, and this morning we went over to see Polly—"

"—his parrot," Waldo interjected, nodding intelligently.

"—Polly Pinton, his ex-wife, now living in Chryse Dome," Lestrade went on. He scrutinized Waldo closely, as though mentally measuring him for a straitjacket. "She told us that Pinton had left a sample of the explosive with Henry Carver and Waldo Burnmaster, Lawyers, at this address."

I sighed. So much for a deal with United Chemicals. I looked at Waldo. He shrugged and went into the back room to get the Pintonite sample.

After half a minute of hanging around in the cupboard he was back, pale and sweating.

"Henry, it's not there." He signalled his next message with his eyes, as clearly as if he had spoken it. "What have you done with it, Henry?"

I was shocked. "It must be there, Waldo, I saw it just yesterday. Let me take a look."

I went into the back room and did a lightning but thorough search

of the cupboards. No jar of white crystals, not a sign of it.

"Henry, for God's sake, don't play games," whispered Waldo from just behind me. "Tell them what you did with it, we can't do any deals now."

I turned back to him. "What do you mean, play games? Aren't you the one who took it to United Chemicals?"

He shook his head. "I was supposed to meet them again tomorrow, with a sample."

We looked at each other in dismay and stupefaction. Finally we went back into the outer office and faced Lestrade. He took the news that the Pinosite was gone with no emotion. It seemed almost as though he had expected something like that. He nodded slowly.

"We'll have to do a deep probe to get information on this. Who was here when Peter Pinson brought that explosive in and discussed storing it with you?"

"I was," Waldo reluctantly volunteered.

"And were you present, Mr. Carver?" asked Lestrade.

"Only at the very end of the meeting." Thank heaven for literal truth, and for the legal definition of present.

"Right, Mr. Burnester, you'll have to come with us. This examination will take a few hours."

The game was over all right. But thank heaven, too, for my own foresight. I took out my wallet with

a sigh and removed a slip of paper from it.

"I don't think that will be necessary, Mr. Lestrade. This contains the chemical analysis of a Pinosite sample, performed just a few days ago."

I handed it to him. Waldo looked like a man relieved at the eleventh hour—psychoprobos were tough stuff and a few people came out of them with their brains permanently scrambled. Korak leapt on the paper with a cry of joy and read it while we watched.

After a few seconds of inspection he began to turn into a vampire. His teeth curled back from his upper lip and a deep snarl came from him. He seemed all set to leap and suck blood.

"Mr. Carver," he finally said in choked tones. "You had a chemical analysis done. I suppose you are willing to tell us what type of analysis was performed?"

Now I was really confused. "Well, of course I am. I asked them to do the most final and complete one that they could. I forget the exact word that was used on the order."

"An ultimate analysis?"

"Yes, that's it exactly."

"You scientific illiterate," he screamed at once. "You great baboon." My information didn't seem to have pleased him. "An ultimate chemical analysis gives the final chemical composition in terms of the percentage of each element. It

doesn't tell you a thing about the chemical structure." He waved the paper in the air, literally gnashing his teeth as he did so. I'd never encountered that before outside the holodramas. "This just gives the amount of carbon, hydrogen, oxygen and fluorine. I could no more make Pintonite from this information than I could make your friend here—" He glowered at Waldo. "—from a barrel of lard and a sack of flour."

An unfortunate example, I felt, and quite uncalled for. They dragged poor Waldo away to his fate. I hoped he'd be back again, intact, in a few hours. What on Earth—what on Mars—had gone wrong? I was sure Waldo had told me the truth—so where was the Pintonite?

I wandered around the office, looking everywhere I could think of for the missing jar. No sign. I picked up the useless chemical analysis paper—my trump card—and looked at it sadly. Then I crumpled it into a ball and went through to the inner office to throw it into the trash.

I opened the lid of the trash can—and froze. Suddenly, I understood exactly what had happened to the Pintonite. It had never occurred to me to tell Waldo that Peter Pinton had switched the phial of liquid for a jar of crystalline Pintonite. Waldo had been looking for the phial, while I'd looked for the jar. Now I'd found it. Empty. Waldo, in his insane lust for sweetmeats,

had used three ounces of Pintonite to sugar his coffee. "Yeasty and sweet," Pinton had said.

When events call for it I can be a man of action. In less than ten minutes I had made reservations for Waldo and myself, immediate departure for Deimos. It was time that Bumcister and Carver found new business offices. I'd write and tell the Tharsis City police all about recent events, but I'd much rather do it from off-planet. I had a clear mental picture of three ounces of Pintonite going into and through Waldo. Tharsis City had, as I recalled, more than thirty thousand meters of sewage pipes beneath it. I could visualize a thin layer of Pintonite spread through every bit. Peter Pinton had said that it was perfectly safe, but his reputation as a reliable authority had diminished considerably in the past few hours. If the Tharsis City plumbing arrangements happened to have the right environment to set it off, it might not be the biggest explosion in the history of Mars, but it would certainly be the most disgusting.

I sat down to wait impatiently for Waldo's return. On second thoughts, I called and modified our space travel reservations. I didn't know how long it took Pintonite to pass completely through the human alimentary canal. Separate flights if Waldo was about to fulfill my old warning and finally, locally, explode, I would rather not participate in the event. ★



science
fact:

A Step Farther Out

A Time For Decisions

Jerry Pournelle, PhD

WE INTERRUPT THIS PROGRAM

"WE SHALL NOBLY SAVE OR nearly lose the last best hope of Earth."

Lincoln was talking about an entirely different conflict when he said that, but it is a statement that applies to this generation in a way that was never true of Lincoln's. No one today seriously believes that human chattel slavery would have survived into the present era no matter what the Union did in 1860, but I do seriously believe that a generation a hundred years from now might well curse our memory.

It was the general consensus of the science press corps that this year's annual meeting of the American Association for the Advancement of Science (AAAS) was the least exciting of those we have recently attended. I agreed at the time. I don't now.

In the first place, while most of them had been reported earlier,

there were marvels enough: the Homestake Mine experiments that show there's something wrong with the Sun; VIKING, two whole days' worth, and all fascinating if non-conclusive; new particles for the basic physicists to play with. Any of those would be worth headlines. You can't say 1976 was really dull.

Secondly, under the non-spectacular headings, there was plenty of food for deep thought, and there was one announcement that ought to stir your blood.

We can have on-line fusion power by 1993. You could be running your car, or heating your water, or shaving your anatomy with power produced by deuterium-tritium fusion, seven years before this century ends. That's a good twenty years earlier than we expected it; it's in time to help get us through those critical thirty years I've spoken of in previous columns.

It's in time to save the world.

So why will our children curse our memory?

The fusion people came to AAAS quietly ready to spring their bombshell: to say that, given some breaks, they'd have a reactor design by 1990 or so, and eight years after that we could have on-line power. Then, when the inevitable question was asked about the earliest possible date, they would spring 1985 as a target date for having a workable reactor design, given (1) lotsa money, and (2) a few bits of rather probable luck. They were, justifiably, prepared to do a bit of preening. They didn't have any spectacular breakthroughs to announce, but they could stack up the evidence from dozens of laboratories and hundreds of experiments and come to the sudden realization that they really think they know how to achieve fusion—and, like the Manhattan Project, to bring it off in more than one way at about the same time.

Unfortunately the people who were ready to make that announcement weren't at the AAAS meeting. They were back in Washington. You see, President Carter's budget had just come out, and out from it were \$80 million in fusion research. Instead of quietly preening about accomplishments, the directors of the labs at Los Alamos, Princeton, Livermore, Sandia, were suddenly confronted with the need to phase out, stretch out, and probably to lay

off staff. That \$80 million was cut from the Ford budget which they thought was already \$50 million too low.

Instead of quiet pride, we had gloom and despair. "This country has no national commitment to fusion power," said one. "At the level of funding indicated by the new budget, we will stay with research forever, we will never have a reactor," says another. "We'll have to lay off people who have devoted their professional lives to fusion research" says a third. All unfortunately true. So the top people were back in Washington, pleading with Carter's budgeters, and trying to slip the word to Congress that this wasn't shrimping fat, it wasn't even slicing muscle, it was amputation of bone and sinew. As I write this there's vague hope that Congress will restore at least part of those cuts; but it doesn't look as if they'll succeed.

Understand: a few years ago I wasn't at all enthusiastic about shovelling money in the general direction of fusion research. Back in 1970 if you asked the fusion people what they'd do if you doubled their budget, they'd stammer a bit, and eventually say they'd do more of what they were doing: build two research facilities, hire more people . . . Hardly confidence-inspiring.

But that's all changed. Now they can tell you exactly what they want, what pieces of hardware they need, what experiments must be per-

formed and how much they'll cost. They've got a handle on the problem. For example: in magnetic confinement the critical figure of merit is the product of time and density and temperature. Two years ago they were at perhaps one percent of the figure needed. Now they're at half. One more push and they reach scientific breakeven, that is, the reaction will produce more energy than was put in.

Since any useful system will be far less than 100% efficient, that's still a long way from practical power. But once scientific breakeven is achieved the rest is engineering—and it's the engineering that has been cut. Carter's budget funds level-of-effort research, and has nothing for new equipment, expansion, new programs, etc.

Unfortunately, that's not all my gloomy news.

The Shuttle: Carter's stretch-out and delay of the first Shuttle flight stands as I write this. Meanwhile, out on the Mojave, the tethered flights of the Shuttle (Cartoon: Shuttle mounted on back of 747. Caption: "Not tonight, dear, I have a headache.") have been so successful that a final one has been cancelled as not needed. She handles like a dream, the pilots tell us. About the time you read this they'll drop the *Enterprise* free of the 747 and let her glide in to a landing at Edwards. Technically the Shuttle program is ahead of schedule. Fi-

nancially it couldn't matter less.

Fusion and space. Cheap, reliable energy, and access to eight new planets, thirty-four moons, and a million asteroids. Power and raw materials. We have it in our power to give those to our children. Possibly to enjoy their benefits within our own lifetimes, but certainly to give them to our children, and as I've said repeatedly in previous columns ("Survival with Style," "Blueprint for Survival," "That Buck Rogers Stuff") once we have plenty of energy and easy access to space, the problems of mankind are solved. Well, not really: I don't pretend there won't be problems. I write about them in my stories. But the fear of starvation, environmental pollution, mass poverty—will become a memory. And that, I say, is worth handing on.

I've given one picture of the future in previous columns. For another, let's look at something else that happened at the AAAS meeting.

The bible of the Appropriate Technology movement is E. F. Schumacher's *Small Is Beautiful: Economics as if People Mattered*. I confess I haven't read it. I have attempted to, several times, but each time I come across some outrageous statement such as "Statistics never prove anything" (page 20), my stomach hurts. Still, I am hardly

against his concepts as I thought I understood them. As Joe Coates (Office of Technology Assessment) said, "Who can be in favor of inappropriate technology?"

The AP movement had a number of events at the AAAS meeting, and I attended them on the theory that I would get a painless introduction into what they were doing, that I would hear some numbers, get some reports, learn some appropriate technology—and be able to pass it all on to my readers. After all, I'm interested in saving energy, and Larry Niven has turned off the heaters in his swimming pool until we can design and build a solar heater for it, I've experimented with hydroponic gardening, and I know my readers would like to hear about practical ways to employ "appropriate technology" in their lives.

I got none of that. The first presentation consisted of an interminable series of slides (most out of focus) showing ugliness presented as if it were beauty. For some reason photographs of privies dominated the series, not only those \$3000 Swedish gizmos that more or less automatically compost the stuff right in your home (provided you don't have too large a family) but also good old-fashioned ODT's of the kind my wife and I experienced in our childhood. The kind with the crescent cut in the door and a Sears catalogue handy in case you run out of Comcoats. "You only have to fork the stuff over about every two



weeks," we were told. "Of course you can run into problems with city departments of public health, so most of these are in rural areas." My reaction was that I hoped to God the city Department of Health would give any of my neighbors who installed an ODT not merely problems, but citations.

There were wine vats converted into bathtubs. We were solemnly told that this was a Good Thing because it recycled and saved energy and for that. Most of the audience, predominantly middle-class youth, sat enraptured as if in church. I wonder if they, at my age, would care for the splinters? And darned, wine barrels are not appropriate as bathtubs. They aren't comfortable,

not are they very well designed.

Another speaker told of how Appropriate Technology changes your head. When the wind comes up at 2 a.m. and the batteries are all charged up, and you've got work to do, why, you get up and do it. Don't waste that wind energy, because the windmill can't really power things at your convenience, so you must adapt yourself to the convenience of the earth.

There was more. A lot more, and all in the same vein. Appropriate Technology, it seems, is not for the developing nations alone (if at all); it's for us. So just what is it? According to the Fact Sheet prepared by the National Center for Appropriate Technology, the characteristics are these: "(1) small scale, (2) decentralized, (3) simple to understand and operate, (4) ecologically sound, and (5) labor intensive." Now who can be against that?

Well, to begin with, I don't know what "ecologically sound" means. I have heard people say that any permanent change in the ecology is evil; does that include Kansas wheat and Japanese rice, neither of which is "natural"? But leave that, and pass to point five, "labor intensive." That is not merely a necessary evil. It is the heart of the AP movement. Given the choice they'll take hard labor over machinery every time. I call to evidence one of their displays: a bicycle seat with pedals attached to a chain that ran

a—wheat grinder. You can sit and knead bread with the hands while pumping away on the bicycle to grind the wheat with your own muscle power. In case you missed the point, there was a film strip showing how the bicycle seat system could be attached to small plows, dragging them through the dirt; to pump water, etc., etc.

Now as an advance over the mortar and pestle, a leg-powered crank system is great, but blind donkeys walking circles to turn the upper on the nether millstone would be a hell of a lot less dull (for us; no one consults the donkey). In fact, on seeing that particular vision of the future—and make no mistake about it, these people mean that to be the future—Larry Niven had a suggestion. I should, he said, put on jackboots and revolver, and carry a whip; we would then find a gentleman of the black persuasion and dress him in rags and have him sit on the bicycle seat to grind our bread. It should, Larry mused, make a good photograph. A picture of the future.

I can't quarrel, except for details. The person seated on the bicycle seat might not be black, and might not be male; the person with whip might not be white or male, but if grinding one's corn to make one's bread requires that kind of labor, then slavery is not far away. "In the sweat of thy face shalt thou eat bread". And mankind has been trying to get someone else to do the

revealing ever since, and rather successfully at that. As a lark, as something chic, labor-intensive technology is all very well, but as a necessity it gets regular: it is not amusing as a way of life.

All right, we've had our laugh at some silly people, extremists with a sprinkling of opportunists. Now let's get serious. Surely, Proumelle, you can't be against conservation? Surely the AP movement, shorn of the more ridiculous aspects (and any view of life, carried to the extreme, can be made to look ridiculous) has great merit? Surely the idea is sound?

I used to think so. I'm not sure I do any longer. The more I listen to the proponents of AP, the more I understand what they're saying, the more I disagree. Look: why shouldn't we have heated swimming pools? What's wrong with big, comfortable, fast automobiles? Why is it evil to have throwaway flashlights, electric can openers, warm houses in winter, air conditioning, luxury foods, electric typewriters, plastic models, Fiberglass yachts with Dacron sails, pocket computers, my own postal scale here in my office so I don't have to go down to the Post Office before mailing this manuscript—all the myriad conveniences, yea, luxuries, of this marvelous modern civilization?

They pollute. They cause long-term harm to Mother Earth. Well, let's fix that. Give me sufficient energy—and I know how to get that—and they won't have any harmful long-term effects.

They use up irreplaceable resources. Well, give me sufficient energy and I'll recycle most of those. Give me access to space and I'll bring you more resources than ever you dreamed of. And don't think I can't do that.

They use up resources that should go to the world's poor. Well, give me sufficient energy and access to space and I'll make the whole world rich—and still have plenty left over for what I want.

At this point the debate ceases. The usual parting remark is, "I wouldn't expect you to understand." In other words, at bottom the real enthusiasts of "Appropriate" Technology are motivated by religion, by the work ethic, by that remnant theme of Western (and Eastern) philosophy that says "Life should be hard." In the sweat of thy face shall thou eat bread. Pride goeth before a fall. Doom and catastrophe await the complacent. Etc.

Well, maybe, but I will counter them with the Parable of the Talents. Meanwhile, what's wrong with the AP movement is that it does not merely encourage the use of small-scale, personally constructed improvements to one's life—something we can all agree is

a Good Thing—but it discourages any large-scale systematic solutions to the truly overwhelming problems facing our world. AP says we can get out of our box through putting beer cans on our roofs, building windmills and privies, turning wine vats into bathtubs, expecting less, making do with less; and that simply ain't so, nor is it particularly desirable.

In my last column I talked about use of waste resources. Does anyone seriously imagine that will come about through everyone's individual efforts? That *privies* will do the job? Just how appropriate is Appropriate Technology? Would the world really be better off if, instead of trying to keep up with the literature, and writing, I were to fork my own manure, grow my own vegetables, engage in labor-intensive activities?

Understand, I've nothing against developing ways that let everyone contribute to our social order, and I've no illusions about one unfortunate side-effect of our technological era that it makes more and more people helpless, unable to find meaningful work, makes them feel useless; to the extent that the AP movement alleviates that, splendid. But I do point out that many of our large-city problems could be much reduced if people would make such minimum contributions as picking up trash where they find it, putting the lids on garbage cans, not littering, and the like—some of which

take the sustained and dreary effort required to grind one's own wheat and bake one's own bread.

Two pictures of the future: the bicycle-pedal wheat grinder with lowered thermostat, or unlimited energy and nearly boundless wealth. Let's leave the dreary picture and look at the other one.

There was at the AAAA meeting a symposium on the future of the hand calculator. The predicted developments weren't startling, and won't be to anyone who's read *The More In God's Eye*; but the time-scale and prices were.

The limiting factor in costs of hand-held computers is the hardware, such as keys and displays. The limiting factor in size is similarly the input-output mechanism. They could already put the most complex pocket calculator into your watch if there were any reason to do so—and if we could micro-miniaturize our eyes and fingers so that we could use the fool thing. Within five years the most elaborate calculators presently on the market will sell for fifty bucks or less.

Within about the same time span they'll be able to put the Rubber Handbook (*The CRC Handbook of Chemistry and Physics*, twelve pounds of dry print) into a memory unit connectable to a pocket calculator and itself pocket-sized. In not a lot more time they could put

the full capabilities of one of those Altair micro-computers into a hand-held calculator. If there was a market for a million units, the cost would be under fifty dollars. They could already build the best of the micro-computers into a box no larger than its keyboard and read-out screen.

One reason all this hasn't happened is market potential: how many people want or need a full-capability programmable general-purpose computer? All of us, I'd say, but it requires some changes in our educational philosophy. For example, what is the value of knowing the times table? Why should we be able to add up large columns of numbers? Well, you might one day be without your calculator. Self-reliance. It's good for the soul. Damnit, if we let the kids use calculators in school from first grade up, they'll never understand numbers.

As if most of them do now. I put it to you that the ones who now learn what numbers are all about will learn it anyway; and those who never do learn can at least be taught how to use a pocket calculator, thus letting them have the opportunity to be waitresses, store clerks, taxi drivers, etc. When was the last time a Galaxy reader used a log table? Took a square root by pencil and paper? Multiplied three digit numbers on paper? Added up a large column of figures? Certainly I do more calculations now than ever

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I would if I had to go back to slide rules, and my work is the better for it. So is yours. Yet we are made to feel guilty because . . . because what? Because making things easier is decadent? Nonsense.

Beyond the pocket calculator is the implanted computer: the box that you think at, giving you instant access to the answer to any question you can think of (provided that the answer is known and stored, or calculable). How long to that? Larry and I ran into Dr. Adam Reed in the halls, and we had a pleasant chat. Reed is, you may recall, the engineer/psychologist at Rockefeller University who's working on brain-computer interfaces.

He still puts preliminary results at about ten years' distance. He also reports new physiological evidence for the holographic model of the brain. (For more details on that theory, see my previous column, "Here Come the Brains," October, 1974 *Galaxy*.) Coupled with the truly remarkable advances in micro-miniaturization achieved by Texas Instruments, Hewlett-Packard, and other micro-chip manufacturers, the computer-in-your-head may well come within my lifetime, almost certainly within yours.

So what else is new? Well, there's particle physics. Sub-nuclear physics is in a rather confused state at the moment, what with quarks,

flavors, colors, "gluons" (yes, I said that: a postulated particle that "glues" certain quarks together) and every few months somebody finds a new anomaly that won't fit what physicists think they know. But there's some hope now: Chen Ning Yang, Albert Einstein Professor of Physics at the State University of New York, Stony Brook, confidently expects to have a unified field theory within his lifetime—if someone doesn't beat him to it.

The reason is simple: physicists now have some new equipment to play with. The big Fermi accelerator at Batavia, Illinois, an even more powerful beam accelerator in Europe; these and other multi-megabuck installations are pouring out data, and some of it is finally beginning to fall into place. More and more often, physicists are able to predict what kind of squiggle they'll see in their bubble-chamber after they send particles racing off around the big accelerator ring.

So what good is it? Well, as Helmholtz once said, "The most practical thing in the world is a good theory." Does anyone want to argue that James Clerk Maxwell's elegant equations—now appropriately emblazoned on t-shirts—didn't change the world? Or that the theoretical work of a Swiss patent-office clerk hasn't had an effect on our lives? There's at least as much potential in the new particle theories

as ever there was, in $e = mc^2$. Forces that don't decrease with distance. Interactions between nuclear and electro-magnetic forces. As Franklin said of his discovery, what use is a newborn baby?

But there's a hitch. The theoretical advances in physics come largely from new hardware, new accelerators, equipment to let physicists play with the basic building blocks of the universe, and that stuff is *expensive*. Our last several Presidents gulped hard and came up with the money for Fermi-lab. Our present one seems to have cut out every research item that won't have a payoff in the next four years.

Shuttle delayed means Large Space Telescope delayed. Meanwhile, a search of the historical records reveals the disturbing information that our Sun really is a variable star, and that we may live in a rather unusual period; that our climate might change, and since the present climate is about as favorable as has ever been in the history of the world, the change will likely be for the worse. Studying the Sun won't let us do anything about that—but it will let us know what's happening, how long the changes will last, and what we're up against.

There was a lot more, of course. Bart J. Bok, formerly of Harvard, has a good handle on how stars are born from "pre-proto-stars,"

namely balls of cold gas called, appropriately enough, Bok Globules; a great deal about Mars from the Viking team, with far more to come as the data are analyzed; a long symposium on the right to die; a day on new information about the polar regions (they're cold); not much on recombinant DNA research, probably because scientists are afraid to discuss it in public; a non-spectacular panel analyzing data from various "early intervention" programs like Head Start and concluding that such things really do help, permanently, and show a significant economic profit in reduced crime rates (and that was startling enough for me, since I've tended to look at such programs with jaundiced eye, and must now rethink my position).

There was one moment of triumph, when I saw the very large displays on jobops research, and found that, to the bewilderment of those involved, the Congress, reacting to constituent letters, had practically forced money into their hands. So far as I know, many if not most of those letters to the Congress came from *Galaxy* readers. I know of no other strong attempt to push the jobops bean.

But there was nothing really spectacular in Denver. No screaming marches that I saw, although my wife found herself witnessing some excitement among the educational psychologists. There were so "events" such as the meeting a few

years ago when the war protesters and Free Speech Movement people whapped Senator Hubert Humphrey right smack in the nuch with a ripe tomato, or the time when the Committee Against Racism saw to it that Professor Page and others were not allowed to present their papers.

I didn't come away from Denver with the ferment of excitement that I experienced in previous meetings. Instead, I kept thinking of that Lincoln quote I opened with, "We shall nobly save or meanly lose the last best hope of Earth."

We really are at such a crossroad. This generation is blessed—or cursed—with the ability to make as fundamental an alteration in human history as ever was made by the discovery of the wheel, the taming of animals, the use of fire. For the cost of a couple of Apollo programs, peanuts really, we could give all mankind for all time to come boundless energy, energy to waste, energy for luxuries; access to space and its limitless resources; a capability to harness the fundamental forces of nature.

We really could. But—we have no national commitment to do so. We have no national commitment to do anything. At present we really do seem in a quandary, unable to make a basic choice between Appropriate Technology and all its philosophical implications, versus a concerted national effort to exploit technology and science to the fullest, to commit the resources and

once and for all end physiological want.

No, we cannot "solve" all human problems. We may indeed be opening wider Pandora's box. There is no certainty that the scientific djinn will not turn on us. Alternatively, there is absolute certainty that without the djinn most of the world faces starvation and poverty, and we will have to adjust to a way of life that may well include the bicycle-pedal wheat grinder—presuming we have the capability even to manufacture shoes, after the crunch.

In the past I've entitled these annual reports on the state of the sciences "This Generation of Wonder," and "Man's Future: Prognosis Magnificent," and I've tried to leave my readers with some sense of the wonder I felt. I wish I could do that this year, but I can't. The prognosis could be magnificent; but it is all too clear that none of those marvels will happen automatically. They're just too expensive. Maybe when it's steam engine time steam engines will appear, but you cannot say that about Space Shuttles, and fusion reactors, and Large Space Telescopes, and accelerators.

And yet it's no small thing, to know that we live in a generation that could, if we would, make as great a contribution to human history as ever any did; that we could be part of something as important as the harnessing of fire and the discovery of the wheel. ★

Frank Herbert
THE DOSADI EXPERIMENT



What is Dosadi?

Sabotage Extraordinary for) K. McKie must answer this question after rapping himself on the planet of that name.

McKie knows that Dosadi's imprisoned millions are sealed away from the rest of the ConSentient universe by an englobing barrier under the control of a Calibum. The Calibum are visible as stars in his universe. They provide the ConSentient with jumpfloors through which one can walk in one jump from planet to planet. They are a 'useful mystery' and some believe them a manifestation similar to the Taphiroi, stabby, leg-like people who provide instant mind-to-mind communication across the pureses.

Other things McKie knows:

That the master of Dosadi (those outside the barrier 'God Wall' or those inside) will destroy the planet and all of its inhabitants soon unless he can solve the undefined problem of this place.

He knows that Dosadi is a terrible training ground for the recognition of and use of power. But this planet's trouble is a creation of name among the Gwuchin Frog People for whom waiting almost to extinction is a natural order.

And there is always something beyond McKie's knowledge, some other mystery about Dosadi which shakes him even after he learns that people can exchange old bodies for new on this planet.

One of McKie's foremost problems is Kelle Jedrik, a Human female on Dosadi, a new workable breed and trained to free her planet from its secret imprisonment. Jedrik uses mental simulation models of all those

she seeks to control, including those unknown to her who imprison Dosadi. She reads these latter forces through their actions.

Jedrik has taken McKie as her lover but with multiple and profoundly Dosadi intent. She uses him for many things while teaching him, even teaching McKie about himself. Through Jedrik, he sees how the Gwuchin could groom him for this role because he was emotionally flawed. And as Jedrik shows him the cold relationship between two pureses who serve her, McKie learns that on Dosadi love is a means of controlling others. To be independent here, you reveal no love.

Another odd clue about the planet is Pcharky, an aged Gwuchin Jedrik keeps in a cage which Pcharky built. The cage glows and hums with strange energies.

Dosadi has only two sentient species: Gwuchin and Human. They are descended from a memory-erased population which volunteered for a long-term psychological experiment. The descendants, increasingly resistant to memory-erasure, know they're puppets in a confined hell. Dosadi's plants and animals are poisonous to both species unless raised in hydroponic isolation behind the guarded walls of their one city, Chu. All around the city, the people of the Rim live short, violent lives in a scramble for entry into the relative purity of Chu.

McKie arrives at the beginning of a race war, not knowing that Jedrik ignited this battle of extinction because of his arrival, that she considers McKie her key to the God Wall.

But McKie also is an agent of the ConSentient's Bureau of Sabotage.

an ambassador-like ministry which learned about Dosadi's existence, that it is a planet imprisoned by a Calchan, that it is a Gowachin crime.

McKie was the logical choice to seek out Dosadi's location. He had developed a relationship with a Calchan calling herself Fannin Mae, and he is the only being non-Gowachin admitted to practice under Gowachin Law. Gowachin distrust law (even their own) saying it injures societies. They look first for ways to disarm or remove law when problems arise. Above all, Gowachin distrust any community or professionals, especially legal professionals. The ultimate use of Gowachin Law is to dissolve old law with a concomitant application of justice.

Assignment of McKie to the Dosadi problem was made by his bureau chief, Bildson, a PanSpeechi, whose species can see Human form but passers any eye from person to person within a five-member covele-family.

As his first move, McKie accepts a summons to the Gowachin home planet of Tundolour, place of their mythological progenitor, Mreog. In Gowachin myth, Mreog was a monster who tested the first primitive Frog People almost to extinction, setting the pattern of their deepest instincts.

On Tundolour, McKie meets Arlich, High Magister of the most powerful Gowachin Phylum, and a deadly Wreave female named Crylang who is being trained as a Legum. If McKie offends Crylang, he risks vendetta with the gigantic extended family which her species creates through marital exchanges.

McKie is forced to become Arlich's Legum, accepting the Phylum's sacred

bes containing a book, a knife and a rock—symbols of Gowachin Law and reminders that any person using this legal structure may forfeit his life.

Sent to Dosadi by Arlich's people, McKie soon learns that he cannot leave the planet in his existing 'bodymode.' This is part of the Calchan contract. But McKie is equally concerned with immediate survival as Jodrik was him first in one task and then another to help her war against the Dosadi Gowachin.

Opposing Jodrik is the planet's dominant warlord, the Elderov Brooy, a Gowachin who speaks in secret with the Calchan of the God Wall. Brooy knows some things about McKie, considers the BuShab agent an idiosyncratic, a weapons expert from beyond the barrier. This is partly because Jodrik's forces have taken McKie's sophisticated BuShab weapons and improved upon them for the battle.

Among Brooy's aides are two Humans, the Warlord Gar and Gar's daughter, Tria, who plot to build another city on Dosadi in defiance of their religious mandate. To keep their place in the ruling council, Gar has revealed this plot to Brooy, who arrives in the face of a growing cynicism about 'the God of the Wall,' to find the Hapshomous city and destroy it.

One of Brooy's tools is a Human named Marry, a person from beyond the God Wall whom Jodrik judged "too flawed" to act as a key to the Calchan barrier.

Gar and Tria have developed a suicide force of the Rim born which, through Jodrik's maneuvering, is confined to an untenable corridor between the forces of Jodrik and Brooy. Tria sees her impasse and, with Gar, submits to capture by Jodrik.

A Dossah-embellished McKie, watching Jedrik's interrogation of Gar and Tria, realizes that Tria was trained by a PanSporchi. McKie forces Gar to reveal that Tria is not his natural daughter, that he found her as an abandoned wandering child far out on the Rim, raised her as his own. This aspect of the Dossah Experiment escapes for McKie another of Artich's lies: the Rim is not outside the experiment, but essential to it.

How many other lies did Artich tell? The High Magister said the Dossah were 'monstrous,' but McKie admires their strengths, agreeing that the Dossah may well take over the Confederacy if released from their planet. Artich has told Dossah was an attempt to raise a population resistant to all mediocrity imposed from above. But there are hidden motives, perhaps an attempt to make Gowachin Law the basis for all Confederate Law. McKie knows he has been trained as a secret power in the Dossah game, but the Gowachin are so ultimately civilized they have come full circle into savagery.

Jedrik, demonstrating to Gar and Tria that McKie really is her lieutenant, sends him into danger to solve a battle problem at one of the city's inner gates. McKie wins the battle and questions captives. One is a Gowachin with small-like ears on his eyelids, a poorly created Phylum lotus. Making formal demand as a Legum, McKie forces the captive to reveal that only sixty hours remain before Dossah is destroyed, that "M'ring sent me to get our people out of here."

Another prisoner is Harry, who reveals that Pcharky is intended to transfer McKie's identity into Jedrik's body and Jedrik into McKie, giving her

the perfect disguise for escaping from Dossah. However, McKie recognizes something else—that a Catebon looks out through Harry's eyes. Sending a message through this Catebon, McKie warns Artich to adhere to the traditional relationship between Legum and Client lest all Gowachin be targets for extermination.

McKie, his mind threading through the layers within layers of the Dossah problem, returns to Jedrik and gives her the essential datum for overwhelming Bney: use the fanatics offered by Gar and Tria to attack the Gowachin groves, breeding pools. Jedrik first sends word of this threat to Bney, then tells McKie to go back to their room with her, that it's time for their showdown. McKie obeys wondering: Is it to be body exchange?

Back on Tendelour, Crying has been watching simulations and actual scenes of McKie's performance as Dossah. She tells Artich, "Sometimes I think those Dossah play us like a fine instrument."

Artich: "Of course! That's why we sent them McKie."

Genetic or other life extension for the powerful poses a similar threat to a sentient species as that found historically in the dominance of a self-perpetuating bureaucracy. Both assume prerogatives of immortality, collecting more and more power with each passing moment. This is power which draws a theological aura about itself—the unattainable Law, the God-given mandate of the leader, manifest destiny. Power held too long within a narrow framework moves further and further away from the

adaptive demands of changed conditions. The leadership grows ever more paranoid, suspicious of inventive adaptations to change, fearfully protective of personal power and, in the terrified avoidance of what it sees as risk, blindly leads its people into destruction.

—Bisob Manual

"Very well, I'll tell you what bothers me," Ceylang said. "There are too many things about this problem that I fail to understand."

From her seated position, she looked across a small round room at Arich, who floated gently in a tiny blue pool. His head at the pool's lip was almost on a level with Ceylang's. Again, they had worked late into the night. She understood the reasons for this, the time pressures were quite apparent, but the peculiar Gowachin flavor of her training kept her in an almost constant state of angry questioning.

The whole thing was so un-Wreave!

Ceylang smoothed the robe over her long body. The robe was blue now, one step away from Legum black. Appropriately, there was blue all around her—the walls, the floor, the ceiling, Arich's pool.

The High Magister noted his chin on the pool's edge to speak.

"I require specific questions before I can even hope to penetrate your puzzlement."

"Will McKie defend or prosecute? The simulator . . ."

"Damn the simulator! Odds are that he'll make the mistake of prosecuting. Your own reasoning powers should . . ."

"But if he doesn't!"

"Then selection of the judicial panel becomes vital."

Ceylang turned her body to one side, feeling the chairdog adjust for her comfort. As usual, Arich's answer only deepened her sense of uncertainty. She voiced that now.

"I continue to have this odd feeling that you intend me to play some role which I'm not supposed to discover until the very last instant."

Arich breathed noisily through his mouth, splashed water onto his head.

"This all may be moot. By this time day after tomorrow, Dosadi and McKie may no longer exist."

"Then I will not advance to Legum?"

"Oh, I'm fairly certain you'll be a Legum."

She studied him, sensing irony, then:

"What a delicate line you walk, High Magister."

"Hardly. My way is wide and clear. You know the things I cannot countenance. I cannot betray the Law or my people."

"I have similar inhibitions. But this Dosadi thing . . . so tempting."

"So dangerous! Would a Wreave don Human flesh to learn the Human condition? Would you permit a Human to penetrate Wreave society in this . . ."

"There are some who might conspire in this! There are even Gowachin who . . ."

"The opportunities for misuse are countless."

"Yet you say that McKie already is more Gowachin than a Gowachin."

Artich's webbed hands folded over the pool's edge. The claws extended.

"We risked much in training him for this task."

"More than you risk with me?"

Artich withdrew his hands, stared at her, unblinking.

"So that's what bothers you."

"Precisely."

"Think, Ceylan, how near the core of Wreavedom you would permit me to come. Thus far and no farther will we permit you."

"And McKie?"

"May already have gone too far for us to permit his continued existence."

"I heed your warning, Artich. But I remain puzzled as to why the Caleban couldn't prevent . . ."

"They profess not to understand the ego transfer. But who can understand a Caleban, let alone control one in a matter so delicate? Even this one who created the God Wall . . ."

"It's rumored that McKie understands Caleban."

"He denies it."

She rubbed her pocked left jawl with prehensile mandible, felt the many scars of her passage through the Weave triads. Family to family

and it was a single gigantic family. Yet, all were Weave. This Dosadi thing threatened a monstrous parody of Wreavedom. Still . . .

"So fascinating," she murmured.

"That's its threat."

"We should pray for the death of Dosadi."

"Perhaps."

She was startled.

"What . . .?"

"This might not die with Dosadi. Our sacred bond asserts that you will leave here with this knowledge. Many Gowachin know of this thing."

"And McKie."

"Infections have a way of spreading," Artich said. "Remember that if this comes to the Court-arena."

There are some forms of insanity which, driven to an ultimate expression, can become the new models of sanity.

—McSeb

"McKie?"

It was the familiar Caleban presence in his awareness, as though he heard and felt someone (or something) which he knew was not there.

The preparation had been deceptively simple. He and Iodrik clasped hands, his right hand and her left, and each grasped one of the shimmering rods with the other hand.

McKie did not have a ready idea-



ally for this Calchan and wondered at the questioning in her voice. He agreed, however, that he was indeed McKie, shaping the thought as subvocalized conversation. As he spoke, McKie was acutely aware of Jedrk beside him. She was more than just another person now. He carried a tentative simulation model of her, sometimes anticipating her responses.

"You make mutual agreement?" the Calchan asked.

McKie sensed Pcharky then; a distant presence, the monitor for this experience. It was as though Pcharky had been reduced to a schematic which the Calchan followed, a set of complex rules many of which could not be translated into words. Some part of McKie responded to this as though a monster

awakened within him, a sleeping monster who sat up full of anger at being aroused thus, demanding:

"Who is it that dares awaken me?"

McKie felt his body trembling, felt Jedrik trembling beside him. The Caliban/Taprisian trembling, the sweaty response to trance! He saw these phenomena now in a different light. When you walked at the edge of this abyss . . .

While these thoughts passed through his mind, he felt a slight shift, no more than the blurred reflection of something which was not quite movement. Now, while he still felt his own flesh around him, he also felt himself possessed of an inner contact with Jedrik's body and knew she shared this experience.

Such a panic as he had not thought possible threatened to overwhelm him. He felt Jedrik trying to break the contact, to stop this hideous sharing, but they were powerless in the grip of a force which would not be stopped.

No time sense attached itself to this experience, but a fatalistic calm overcame them almost simultaneously. McKie felt awareness of Jedrik/flesh deepen. Curiosity dominated him now.

So this is woman!

This is man?

They shared the thoughts across an instinctive bridge.

Fascination gripped McKie. He probed deeper.

He/she could feel himself/herself

breathing. And the differences! It was not the genitalia, the presence or lack of breasts. She felt bereft of breasts. He felt acutely distressed by their presence, self-consciously aware of profound implications. The sense of difference went back beyond gamete McKie/Jedrik.

McKie sensed her thoughts, her reactions.

Jedrik sensed him in the same way.

Jedrik: "You cast your sperm upon the stream of time."

McKie: "You enclose and nurture . . ."

"I can't nurture."

It was as though they looked at an object from opposite sides, aware belatedly that they both examined the same thing.

"We cast/we nurture."

Obscuring layers folded away and McKie found himself in Jedrik's mind, she in his. Their thoughts were not easily . . .

The separate Desadi and ConScentric experiences melted into a single relationship.

"Arfch . . . ah, yes. You see? And your PanSpechi friend, Bif-down. Note that. You suspected, but now you know . . ."

Each set of experiences led on to the other, expanding, refining . . . condensing, discarding, creating . . . creating . . .

So that's the training of a Legam, leaving parents? Ahhh, yes, leaving parents.

"We will apply pressure

them . . . and there . . . They must be maneuvered into choosing that one as a judge. Yes, that will give us the required leverage. Let them break their own code."

And the awakened monster stirred within them. It had no dimension, no place, only existence. They felt its power.

"I do what I do!"

The power enveloped them. No other awareness was permitted. They sensed a primal current, unswerving purpose, a force which could override any other thing in their universe. It was not God, not Life, not any particular species. It was something so far beyond such articulations that Jedrik/McKie could not even contemplate it without a sense that the next instant would bring obliteration.

They felt a question lurked at their united, fearful awareness. The question was framed squarely in anger, astonishment, cold amazement and threat.

"For this you awaken us?"

Now, they understood why the old body and donor-ego had always been slain immediately. This terrible sharing made a . . . made a noise. It awakened a questioner.

They understood the question without words, knowing they could never grasp the full meaning and emotive thrust, that it would burn them out even to try. Anger . . . astonishment . . . cold amazement . . . threat. The question as their own united mind(s) interpreted it

represented a limit. It was all that Jedrik/McKie could accept.

The intrusive questioner receded.

They were never quite sure afterwards whether they'd been expelled or whether they'd fled in terror, but the parting words were burned into their combined awareness.

"Let the sleeper sleep."

They walked softly in their minds then. They understood the warning, but knew it could never be translated in its fullest threat for any other sentient being.

Concurrent: McKie/Jedrik felt a projection of terror from the God Wall Caliban, unfocused, unexplained. It was a new experience in the male-female collective memory. Caliban Fannie Mae had not even projected this upon original McKie when she'd thought herself doomed.

Concurrent: McKie/Jedrik felt a burn-out-fading from Pcharky. Something in that terrible contact had plunged Pcharky into his death spiral. Even as McKie/Jedrik realized this, the old Gowachin died. It was a slammed door. But this came after a blazing realization by McKie/Jedrik that Pcharky had shared the original decision to set up the Dosadi experiment.

McKie found himself clothed in living, breathing flesh which routed its messages through his awareness. He wasn't sure which of their two bodies he possessed, but it was dis-

met, separate. It wrapped him in Human senses: the taste of salt, the smell of perspiration and the omnipresent Warren stink. One hand held cold metal; the other clasped the hand of a fellow Human. Perspiration drenched this body, made the clasped hands slippery. He felt that knowing which hand held another hand was of utmost importance, but he wasn't ready to face that knowledge. Awareness of self, this new self, and a whole lifetime of new memories, demanded all of the attention he could muster.

Focus: A Rim city, never outside Jedrik's control because she had fed the signals through to Gar and Tria with exquisite care and because those who gave the orders on the Rim had shared in the generations of selective breeding which had produced Jedrik. She was a biological weapon whose sole target was the God Wall.

Focus: Loving parents can thrust their child into deadly peril when they know everything possible has been done to prepare that child for survival.

The oddity to McKie was that he felt such things as personal memories.

"I did that."

Jedrik suffered the throes of similar experiences.

Which body?

So that was the training of a BuSab agent. Clever... almost adequate. Complex and full of much that she found to be new, but

why did it always stop short of a full development?

She reviewed the sessions with Anick and Ceylang. A matched pair. The choice of Ceylang and the role chosen for her appeared obvious. How insouciant Jedrik felt herself free to pity Ceylang. When allowed to run its course, this was an interesting emotion. She had never before felt pity is uncolored punity.

Focus: McKie actually loved her. She savored this emotion in its ConSentient complexity. The straight flow of selected emotions fascinated her. They did not have to be bridled!

In and out of this creative exchange there wove an intimacy, a pure sexuality without inhibitions.

McKie, savoring the amusement Jedrik had felt when Tria had suggested a McKie/Jedrik breeding, found himself caught by demanding male eroticism and knew by the sensation that he retained his old body.

Jedrik, understanding McKie's long search for a female to complete him, found her amusement converted to the desire to demonstrate that completion.

As she turned toward him, releasing the dull rod which had once shimmered in contact with Pcharky, she found herself in McKie's flesh looking into her own eyes.

McKie gasped in the mirror experience.

Just as abruptly, driven by shock, they shifted back into familiar flesh.

McKie male, Jedrik female. Instantly, it became a thing to explore—back and forth. Eroticism was forgotten in this new game.

"We can be either sex/body at will!"

It was something beyond Taprisons or Calebans, far more subtle than the crawling progression of a PanSpechi ego through the bodies from its crèche.

They knew the source of this odd gift even as they sank back on the bed, content to be familiar male and female for a time.

The Monster

This was a gift with barbs in it, something loving parents might give their child in the knowledge that it was time for this lesson. Yet they felt revitalized, knowing they had for an instant tapped an energy source without limits.

A pounding on the door interrupted this shared reverie.

"Jedrik! Jedrik!"

"What is it?"

"It's Broey. He wishes to talk to McKie."

They were off the bed in an instant.

Jedrik glanced at McKie, knowing she had not one secret from him, that they shared a reasoning base. Out of the mutual understanding in this base, she spoke for both of them.

"Does he say why?"

"Jedrik. . . ."

They both recognized the voice of a trusted aide and heard the fear

in it.

"... It's midmorning and there is no sun. God has turned off the sun!"

"Sealed us in . . ."

"... to conceal the final blast."

Jedrik opened the door, confronted the frightened aide.

"Where is Broey?"

"Here . . . in your command post. He came alone without escort."

She glanced at McKie. "You will speak for us."

Broey waited near the position bound in the command post. Watchful Humans stood within striking distance. He turned as McKie and Jedrik entered. McKie noted that the Gowachin's body was, indeed, heavy with breeding juices as anticipated. Unsettling for a Gowachin.

"What are your terms, McKie?"

Broey's voice was general, full of heavy breathing.

McKie's features remained Dosadi-bland, but he thought *Broey thinks I'm responsible for the darkness. He's terrified.*

McKie glanced at the threatening black of the windows before speaking. He knew this Gowachin from Jedrik's painstaking study. Broey was a sophisticate, a collector of sophistication who surrounded himself with people of the same stripe. He was a professional sophisticate who read everything through that peculiar Dosadi screen. No one could come into his circle who

didn't share this pose. All else remained outside and inferior. He was an ultimate Dosadi, a distillation, almost as Human as Gowachin because he'd obviously once worn a Human body. He was Gowachin at his origins, though . . . no doubt of it.

"You followed my scent," McKie said.

"Excellent!" Broey brightened. He had not expected a Dosadi exchange, pared to the non-emotional essentials.

"Unfortunately," McKie said, "you have no position from which to negotiate. Certain things will be done. You will comply willingly, your compliance will be forced, or we will act without you."

It was a deliberate grading on McKie's part, a choice of non-Dosadi terms to abbreviate this confrontation. It said more than anything else that McKie came from beyond the God Wall, that the darkness which held back the daylight was the least of his resources.

Broey hesitated, then:

"So?"

The single word fell on the air with countless implications; an offer exchanged, hopes dashed, a hint of sadness at lost powers, and still with that sophisticated reserve which was Broey's signature. It was more subtle than a shrug, more powerful in its Dosadi overtones than an entire negotiating session.

"Questions?" McKie asked.

Broey glanced at Jedrik, obviously surprised by this. It was as though he appealed to her. They were both Dosadi, were they not? This outsider came here with his gross manners, his lack of Dosadi understanding. How could one speak to such a one? He addressed Jedrik.

"Have I not already stated my submission. I came alone, I . . ."

Jedrik picked up McKie's cue.

"There are certain . . . peculiarities to our situation."

"Peculiarities?"

Broey's vibrating membrane blinked once.

Jedrik allowed her manner to convey a slight embarrassment.

"Certain delicacies of the Dosadi condition must be overlooked. We are now, all of us, subject supplicants . . . and we are dealing with people who do not speak as we speak, act as we act . . ."

"Yes." He pointed upward. "The mentally retarded ones. We are in danger then."

It was not a question. Broey peered upward, as though trying to see through the ceiling and intervening floors. He drew in a deep breath.

"Yes."

Again, it was compressed communication. Anyone who could put the God Wall there could crush an entire planet. Therefore, Dosadi and all of its inhabitants had been brought to a common subjection. Only a Dosadi could have accepted

it this quickly without more questions and Booy was an ultimate Dosadi.

McKie turned to Jedrik. When he spoke, she anticipated every word, but she waited him out.

"Tell your people to stop all attacks."

He faced Booy.

"And your people."

Booy looked from Jedrik to McKie, back to Jedrik with a puzzled expression openly on his face, but he obeyed.

"Which communicator?"

• • •

Where pain predominates, agony can be a valued teacher.

—Dosadi Aphorism

McKie and Jedrik had no need to discuss the decision. It was a choice which they shared and knew they shared through a memory-selection process now common to both of them. There was a loophole in the God Wall and even though that wall now blanketed Dosadi in darkness, a Calchan contract was still a Calchan contract. The vital question was whether the Calchan of the God Wall would respond.

Jedrik in McKie's body stood guard outside her own room while a Jedrik-fleshed McKie went alone into the room to make the attempt.

Who should he try to contact? Fannie Mae? The absolute darkness which enclosed Dosadi floated in an absolute withdrawal of the guardian Calchan. And there was so little time.

McKie sat cross-legged on the floor of the room and tried to clear his mind. The constant strange discoveries in the female body he now wore interfered with concentration. The moment of exchange left an aftershock which he doubted would ever diminish. They had but to share the desire for the change now and it occurred. But this different body . . . ah, the multiplicity of differences created its own confusions. These went far beyond the adjustments to different height and weight. The muscles of his/her arms and hips felt wrongly attached. The bodily senses were routed through different unconscious processes. Anatomy created its own patterns, its own instinctual behavior. For one thing, he found it necessary to develop consciously-monitored movements which protected his/her breasts. The movements were reminiscent of those male adjustments by which he prevented injury to testes. These were movements which a male learned early and relegated to an automatic behavior pattern. The problem in the female body was that he had to *think* about such behavior. And it went far beyond the breast/tester interlock.

As he tried to clear his mind for the Calchan contact, these webbed

clusters of memory intruded. It was maddening. He needed to clear away bodily distractions, but this female body demanded his attention. In desperation, he hyper-ventilated and burned his awareness into a pined focus whose dangers he knew only too well. This was the way to permanent identity loss if the experience was prolonged. It produced a sufficient clarity, however, that he could fill his awareness with memories of Fannie Mae.

Silence.

He sensed time's passage as though each heartbeat were a blow.

Fear hovered at the edge of the silence.

It came to him that something had put a terrible fear into the God Wall Caliban.

McKie felt anger.

"Caliban! You owe me!"

"McKie!"

The response was so faint that he wondered whether it might be his hopes playing tricks on him.

"Fannie Mae?"

That was stronger and he recognized the familiar Caliban presence in his awareness.

"I am McKie and you owe me a debt."

"If you are truly McKie . . . why are you so . . . strange . . . changed?"

"I wear another body."

McKie was never sure, but he thought he sensed comprehension. Fannie Mae responded more strongly then.

"I remove McKie from Dosadi

now? Contact permits."

"I will share Dosadi's fate."

"McKie!"

"Don't argue with me, Fannie Mae. I will share Dosadi's fate unless you remove another node/person with me."

He projected Jedrik's pattern then, an easy process since he shared all of her memories.

"She wears McKie's body!"

It was accusatory.

"She wears another body," McKie said. He knew the Caliban saw his new relationship with Jedrik. Everything depended now on the interpretation of the Caliban contact.

"Jedrik is Dosadi," the Caliban protested.

"So am I Dosadi . . . now."

"But you are McKie!"

"And Jedrik is also McKie. Contact her if you don't believe me."

He broke the contact with an angry abruptness, found himself sprawled on the floor, still twitching. Perspiration bathed the female body which he still wore. The head ached.

Would Fannie Mae do as he'd told her? He knew Jedrik was as capable of projecting his awareness as he was of projecting hers. How would Fannie Mae interpret the Dosadi contact?

Gods! The ache in his head was a burning thing. He felt alien in Jedrik's body, misused. The pain persisted and he wondered if he'd done irreparable harm to Jedrik's brain.

through that intense pined focus.

Slowly, he pushed himself upright, got to his feet. The Jodrik legs felt weak beneath him. He thought of Jodrik outside that door scrambling in the zombie-like trance required for this mind-to-mind contact. What was taking so long? Had the Calchans withdrawn?

Have we lost?

He started for the door but before he'd taken the second step, light blazed around him. For a fractional heartbeat he thought it was the final fire to consume Dosadi, but the light held steady. He glanced around, found himself in the open air. It was a place he recognized immediately: the courtyard of the Dry Head compound on Tandeloor. He saw the familiar phylum designs on the surrounding walls—green Gowachin script on yellow bricks. There was the sound of water splashing in the corner pool. A group of Gowachin stood in an arched entry directly ahead of him and he recognized one of his old teachers. Yes . . . this was a Dry Head sanctus. These people had protected him, trained him, introduced him to their most sacred secrets.

The Gowachin in the shadowed entry were moving excitedly into the courtyard, their attention centered on a figure sprawled near them. The figure stirred, sat up.

McKie recognized his own body there.

Jodrik!

It was an intense mutual need. The body exchange required less than an eyeblink. McKie found himself in his own familiar body, seated on cool tiles. The approaching Gowachin bombarded him with questions.

"McKie, what is this?"

"You fell through a jumpdoor!"

"Are you hurt?"

He waved the questions away, crossed his legs and fell into the long-call trance focused on that bead in his stomach. That bead Bil-doon had never expected him to use!

As it was paid to do, the Tapriston waiting on CC enfolded his awareness. McKie rejected contact with Bil-doon, made six calls through the responsive Tapriston. The calls went to key agents in BuSab, all of them ambitious and resourceful, all of them completely loyal to the agency's mandate. He transmitted his Dosadi information in full bursts, using the technique derived from his exchanges with Jodrik—mind-to-mind.

There were few questions and those easily answered.

"The Calchan who holds Dosadi imprisoned plays God. It's the letter of the contract."

"Do the Calchans approve of this?"

That question came from a particularly astute Weave agent sensitive to the complications implicit in the fact that the Gowachin were

training Ceyfang, a Wreave female, as a Legam.

"The concepts of approval or disapproval are not applicable. The role was necessary for that Calchan to carry out the contract."

"It was a game?"

The Wreave agent was outraged.

"Perhaps. There's one thing certain: the Calchans don't understand harmful behavior and ethics as we understand them."

"We've always known that."

"But now we've really learned it."

When he'd made the six calls, McKie sent his Tapiriot questing for Anich, found the High Magister in the Running Phylum's conference pool.

"Greetings, Chief."

McKie projected wry amusement. He sensed the Growschin's shock.

"There are certain things which your Legam instructs you to do under the holy seal of our relationship," McKie said.

"You will take us into the Courtyard, then?"

The High Magister was perceptive and he was a beneficiary of Dosadi's peculiar gifts, but he was not a Dosadi. McKie found it relatively easy to manipulate Anich now, enlisting the High Magister's deepest motivations. When Anich protested against cancelling the God Wall contract, McKie revealed only the first layer of stubborn determination.

"You will not add to your

Legam's difficulties," McKie said.

"But what will keep them on Dosadi?"

"Nothing."

"Then you will defend rather than prosecute?"

"Ask your pet Wreave," McKie said. "Ask Ceyfang."

He broke the contact then, knowing Anich could only obey him. The High Magister had few choices, most of them bad ones. And Growschin Law prevented him from disregarding his Legam's orders once the pattern of the contract was set.

McKie awoke from the call to find his Dry Head friends clustered around Jednk. She was explaining their predicament. Yes . . . there were advantages to having two bodies with one purpose. McKie got to his feet. She saw him, spoke.

"My head feels better."

"It was a near thing." And he added:

"It still is. But Dosadi is free."

In the classical times of several species it was the custom of the powerful to nudge the poorer countries (money or other economic tabulations, status points, etc.) into occasional violent perturbations from which the knowledgeable few profited. Huxton accounts of this experience reveal edifying examples of this behavior (for which, see Appendix G). Only the ForSpeck appear to have avoided

this phenomenon, possibly because of orche slavery.

—Comparative History,
The Bubob Test

McKie made his next series of calls from the room the Dry Heads set aside for him. It was a relatively large room reserved for Human guests and contained well-trained chairdogs and a wide bedog which Jedrik eyed with suspicion despite her McKie memories of such things. She knew the things had only a rudimentary brain, but still they were . . . alive.

She stood by the single window which looked out on the courtyard pool, turning when she heard McKie awaken from his Taphist calls.

"Suspicious confirmed," he said.

"Will our agent friends leave Bidson for us?" she asked.

"Yes."

She turned back to the window.

"I keep thinking how the Dosadi sky must look now . . . without a God Wall. As bright as this." She nodded toward the courtyard seen through the window. "And when we get jumpdoors . . ."

She broke off. McKie, of course, shared such thoughts. This new intimacy required considerable adjustment.

"I've been thinking about your training as a Legum," she said.

McKie knew where her thoughts had gone. The Gowachin chosen to train him had all appeared open in their relationship. He had been told that his teachers were a select group, chosen for excellence, the best available for the task: making a Gowachin out of a non-Gowachin.

A silk purse from a sow's ear!

His teachers had appeared to lead conventional Gowachin lives, keeping the usual numbers of fertile females in family tanks, weeding the graduz tank with necessary Gowachin abandon. On the surface of it, the whole thing had assumed a sense of the ordinary. They had introduced him to intimate aspects of their lives when he'd inquired, answered his questions with disarming frankness.

McKie's Jedrik-amplified awareness saw this in a different light now. The contrast between Gowachin phylums stood out sharply. And McKie knew now that he had not asked the right questions, that his teachers had been selected by different rules than those revealed to him at the time, that their private instructions from their Gowachin superiors contained nuances of vital importance which had been hidden from their student.

Poor Ceylaag.

There were unsettling reflections. They changed his understanding of Gowachin honor, called into question all of those inadvertent comparisons he'd made between Gowachin forms and the mandate of

his own BuSab. His BuSab training came in for the same questioning examination.

Why . . . why . . . why . . . why
Law? Gowachin Law?

The value in having a BuSab agent as a Legum of the Gowachin had gained a new dimension. McKie saw these matters now as Jedrik had once seen through the God Wall. There existed other forces only dimly visible behind the visible screen. An unseen power structure lay out there—people who seldom appeared in public, decision makers whose slightest whim carried terrible import for countless worlds. Many places, many worlds would be held in various degrees of bondage. Dowadi had merely been an extreme case for a special purpose.

New bodies for old. Immortality. And a training ground for people who made terrible decisions.

But none of them would be as completely Dowadi as this Jedrik-amplified McKie.

He wondered where the Dowadi decision had been made. Aritch had not shared in it; that was obvious. There were others behind Aritch—Gowachin and non-Gowachin. A shadowy power group existed. It could have its seat on any world of the ConSentency. The power merchants would have to meet occasionally but not necessarily face to face. And never in the public eye. Their first rule was secrecy. They would employ many people who

lived at the exposed fringes of their power, people to carry out shadowy commands . . . people such as Aritch.

And Bilkoon

What had the PanSpechi hoped to gain? A permanent hold on his cabche's ego? Of course. That . . . plus new bodies . . . Human bodies, undoubtedly, and unmarked by the stigmata of his PanSpechi origins.

Bilkoon's behavior . . . and Aritch's appeared so transparent now. And there'd be a Mreg nearby creating the currents in which Aritch swam. Puppet leads to Puppet Master.

Mreg.

That poor fool, Gurik, had revealed more than he thought.

And Bilkoon

"We have two points of entry," McKie said.

She agreed.

"Bilkoon and Mreg. The latter is the more dangerous."

A crease beside McKie's nose began to itch. He scratched at it absently, grew conscious that something had changed. He stared around, found himself standing at the window and clothed in a female body.

Damn! It happened so easily.

Jedrik stared up at him with his own eyes. She spoke with his voice, but the overtones were pure Jedrik. They both found this amusing.

"The powers of your BuSab."

He understood.

"Yes, the watchdogs of justice."

"Where were the watchdogs when my ancestors were lured into this Dosadi trap?"

"Watchdogs of justice, very dangerous role," he agreed.

"You know our feelings of outrage," she said.

"And I know what it is to have loving parents."

"Remember that when you talk to Biddoon."

Once more, McKie found himself on the bed, his old familiar body around him.

Presently, he felt the mental tendrils of a Taptorian call, sensed Biddoon's awareness in contact with him. McKie wasted no time. The shadow forces were taking the bait.

"I have located Dosadi. The issue will come to the Courtarena. No doubt of that. I want you to make the preliminary arrangements. Inform the High Magister Arich that I make the formal imposition of the Legam. One member of the judicial panel must be a Gowachin from Dosadi. I have a particular Gowachin in mind. His name is Broey."

"Where are you?"

"On Tandaloer."

"Is that possible?"

McKie masked his sadness. AAA. Biddoon. How easily you are read.

"Dosadi is temporarily out of danger. I have taken certain retaliatory precautions."

McKie broke the contact.

Jedrik spoke in a musing voice.

"Oth, the perturbations we spread."

McKie had no time for reflections.

"Broey will need help, a support team, an extremely reliable troop which I want you to select for him."

"Yes, and what of Gar and Tria?"

"Let them run free. Broey will pick them up later."

* * *

Communal/managed economies have always been more destructive of their societies than those driven by greed. This is what Dosadi says. Greed sets its own limits, is self-regulating.

—The Dosadi Analysis/BuSab Text

—

McKie looked around the Legam office they'd assigned him. Afternoon sunlight from Tandaloer's fern jungles came in an open window. A low barrier separated him from the Courtarena with its ranks of seats all around. His office and adjoining quarters were small but fitted with all requisite linkages to libraries and the infrastructure to summon witnesses and experts. It was a green-walled space so deceptively ordinary that its like had beguiled more than one non-Gowachin into believing he knew how to perform here. But these quarters rep-

seemed a deceptive surface riding on Gowachin currents. No matter what the Conscientious Pact modified what the Gowachin might do here, this was Tandaboor and the forms of the frog people dominated.

Seating himself at the single table in the office space, McKie felt the chandog adjust itself beneath him. It was good to have a chandog again after Dosadi's unrelenting furniture. He flipped a toggle and addressed the Gowachin face which appeared on the screen inset into his table.

"I require testimony from those who made the actual decision to set up the Dosadi experiment. Are you prepared to meet this request?"

"Do you have the names of these people?"

Did this fool think he was going to blurt out, "Mireg?"

"If you force me to it," McKie warned, "I will bind Aritch to the Law and extract the names from him."

This had no apparent effect on the Gowachin. He addressed McKie by name and title, adding:

"I leave the formalities to you. Any witness I summon must have a name."

McKie suppressed a smile. Suspicion confirmed. This was a fact which the watchful Gowachin in the screen was late recognizing. Someone else had read the interchange correctly, however. Another, older, Gowachin face replaced the first one on the screen.

"What're you doing, McKie?"

"Determining how I will proceed with this case."

"You will proceed as a Legum of the Gowachin Bar."

"Precisely."

McKie waited.

The Gowachin peered narrowly at him from the screen.

"Jedrik?"

"You are speaking to Jorj X. McKie, a Legum of the Gowachin Bar."

Suddenly, the older Gowachin saw something of the way the Dosadi experience had changed McKie.

"Do you wish me to place you in contact with Aritch?"

McKie shook his head. They were so damned obvious, these underlings.

"Aritch didn't make the Dosadi decision. Aritch was chosen to take the blow if it came to that. I will accept nothing less than the one who made that ultimate decision which launched the Dosadi experiment."

The Gowachin stared at him coldly, then:

"One moment. I will see what I can do."

The screen went blank, but the audio remained. McKie heard the voices.

"Hello . . . Yes, I'm sorry to interrupt at this time."

"What is it?"

That was a deep and arrogant Gowachin voice, full of annoyance.

at the interruption. It was also an accent which a Dosadi could recognize in spite of the carefully overlaid masking tones. Here was one who'd used Dosadi.

The voice of the older Gowachin from McKie's screen continued:

"The Legum board to Aritch has come up with a sensitive line of questioning. He wishes to speak to you."

"To me? But I am preparing for Laupak."

McKie had no idea what Laupak might be, but it opened a new window on the Gowachin for him. Here was a glimpse of the purified strata which had been concealed from him all of those years. This tiny glimpse confirmed him in the course he'd chosen.

"He is listening to us at this time."

"Listening . . . why?"

The tone carried threats, but the Gowachin who'd intercepted McKie's demands went on unswerving.

"To save explanations: It's clear that he'll accept nothing less than speaking to you. This caller is McKie, but . . ."

"Yes?"

"You will understand."

"I presume you have interpreted things correctly. Very well. Put him on."

McKie's screen flickered, revealed a wide view of a Gowachin room such as he'd never before seen. A far wall held spears and cutting weapons, streamers of color-

ful pennants, glistening rocks, ornate carvings in a shiny black substance. All of this was backdrop for a semi-reclining shairdog occupied by an aged Gowachin who sat spaddle-legged being attended by two younger Gowachin males. The attendants poured a thick, golden substance onto the aged Gowachin from green crystal flasks. The flasks were of a spiral design. The contents were gently massaged into the Gowachin's skin. The old Gowachin glistened with the stuff and, when he blinked—no phylam satos.

"As you can see," he said, "I'm being prepared for . . ."

He broke off, recognizing that he spoke to a non-Gowachin. Certainly, he'd known this. It was a slow reaction for a Dosadi.

"This is a mistake," he said.

"Indeed." McKie nodded pleasantly. "Your name?"

The old Gowachin scowled at this gauche remark, then chuckled.

"I am called Mlong."

As McKie had suspected. And why would a Tandalour Gowachin assume the name, no, the *siré* of the mythical monster who'd induced the frog people with a drive toward savage living? The implications went far beyond this planet, colored Dosadi.

"You made the decision for the Dosadi experiment?"

"Someone had to make it."

That was not a substantive answer and McKie decided to take it

to issue. "You are not doing me any favors! I now know what it means to be a Legum of the Gowachin Bar and I intend to employ my powers to their limits."

It was as though McKie had worked some odd magic which froze the scene on his screen. The two attendants stopped pouring urgent but did not look toward the pickup viewer which was recording their actions for McKie. As for Mireg, he sat unctily still, his eyes fixed unblinking upon McKie.

McKie waited.

Presently, Mireg turned to the attendant on his left.

"Please continue. There is little time."

McKie took this as though spoken to himself.

"You're my client. Why did you send a proxy?"

Mireg continued to study McKie.

"I see what Ekris meant." Then, more briskly: "Well, McKie, I followed your career with interest. It now appears I did not follow you closely enough. Perhaps if we had not . . ."

He left the thought incomplete.

McKie picked up on this.

"It was inevitable that I escape from Dosadi."

"Perhaps."

The attendants finished their work, departed, taking the oddly shaped crystal flasks with them.

"Answer my question," McKie said.

"I am not required to answer

your question," Mireg countered.

"Then I withdraw from this case."

Mireg hunched forward in sudden alarm. "You cannot! Arich can't. . ."

"I have no dealings with Arich. My client is that Gowachin who made the Dosadi decision."

"You are engaging in strange behavior for a Legum. . . Yes, bring it." This last was addressed to someone offscreen. Another attendant appeared carrying a white garment shaped somewhat like a long apron with sleeves. The attendant proceeded to put this onto Mireg, who ignored him, concentrating on McKie.

"Do you have any idea what you're doing, McKie?"

"Preparing to act for my client."

"I see. Who told you about me?"

McKie shook his head.

"Did you really believe me unable to detect your presence or interpret the implications of what my own senses tell me?"

McKie saw that the Gowachin failed to see beneath the surface waiting. Mireg turned to the attendant who was tying a green ribbon at the back of the apron. The old Gowachin had to lean forward for this. "A little tighter," he said.

The attendant oiled the ribbon.

Addressing McKie, Mireg said: "Please forgive the distraction. This must proceed at its own pace."

McKie absorbed this, assessed it

Dosadi fashion. He could see the makings of an important Gowachin ritual here, but it was a new one to him. No matter. That could wait. He continued speaking, probing this Mreg.

"When you found your own peculiar uses for Dosadi . . ."

"Peculiar? It's a universal motivation, McKie, that one tries to reduce the competition."

"Did you assess the price correctly, the price you might be asked to pay?"

"Oh, yes, I knew what I might have to pay."

There was a clear tone of resignation in the Gowachin's voice, a rare tone for his species. McKie hesitated. The attendant who'd brought the apron left the room, never once glancing in McKie's direction, although there had to be a screen to show whatever Mreg saw of his caller.

"You wonder why I sent a proxy to hire the Legum?" Mreg asked.

"Why Aritch?"

"Because he's a candidate for . . . greater responsibilities. You know, McKie, you astonish me. Undoubtedly you know what I could have done to you for your impertinence, yet that doesn't deter you."

This revealed more than Mreg might have intended, but he remained unaware (or uncaring) of what McKie saw. For his part, McKie maintained a bland exterior, as blank as that of any Dosadi.

"I have a single purpose," McKie said. "Not even my client will sway me from it."

"The function of a Legum," Mreg said.

The attendant of the white apron returned with an unheathed blade. McKie glimpsed a jeweled handle and glittering sweep of cutting edge about twenty centimeters long. The blade curved back upon itself in a tight arc at the tip. The attendant, his back to McKie, stood facing Mreg. The blade no longer was visible.

Mreg, his left side partly obscured from McKie by the attendant, leaned to the right and peered up at the screen through which he watched McKie.

"You've never been apprised of the ceremony we call *Laupek*. It's very important and we've been remiss in leaving this out of your education. *Laupek* was essential before such a . . . project as Dosadi could be set in motion. Try to understand this ritual. It will help you prepare your case."

"What was your *Phylum*?"

"That's no longer important but . . . very well. It was Great Awakening. I was High Magister for two decades before we made the Dosadi decision."

"How many Rim bodies have you used up?"

"My final one. That, too, is no longer important. Tell me, McKie, when did you suspect Aritch was only a proxy?"

"When I realized that not all Gowachin were born Gowachin."

"But Artich . . ."

"Ah, yes. Artich aspires to greater responsibilities."

"Yes . . . of course. I see. The Dosadi decision had to go far beyond a few phylums or a single species. There had to be a . . . I believe you Humans call it a 'High Command.' Yes, that would've become obvious to one as alert as you now appear. Your many marriages deserved us, I think. Was that deliberate?"

Secure behind his Dosadi mask, McKie decided to lie.

"Yes."

"Ahhhhhhhhhh."

Mireg seemed to shivel into himself, but rallied.

"I see. We were made to believe you some kind of dilettante with perverted emotions. It'd be judged a flaw which we could exploit. Then there's another High Command and we never suspected."

It all came out swiftly, revealing the wheels within wheels which ruled Mireg's view of the ConSentient universe. McKie marvelled at how much more was said than the bare words. This one had been a long time away from Dosadi and had not been born there . . . but there were pressures on Mireg now forcing him to the limits of what he'd learned on Dosadi.

McKie did not interrupt.

"We didn't expect you to penetrate Artich's role, but that was not

our intent . . . as you know. I presume . . ."

Whatever Mireg presumed, he decided not to say it, musing aloud instead.

"One might almost believe you were born on Dosadi."

McKie remained silent, allowing the fear in that conjecture to fill Mireg's consciousness.

Presently, Mireg asked, "Do you blame all Gowachin?"

Still, McKie remained silent.

Mireg became agitated.

"We are a government of sorts, my High Command. People can be induced not to question a government."

McKie decided to press this nerve.

"Governments always commit their entire populations when the demands grow heavy enough. By their passive acceptance, these populations become accessories to whatever is done in their name."

"You've provided free use of jumpdoors for the Dosadi?"

McKie nodded. "The Calebas are aware of their obligation. Jedrik has been busy instructing her compatriots."

"You think to loose the Dosadi upon the ConSentientcy and hunt down my High Command? Have a care, McKie. I warn you not to abandon your duties as a Legem or to turn your back on Artich."

McKie continued silent.

"Don't make that error, McKie. Artich is your client. Through him

you represent all Gowachin."

"A Legum requires a responsible client," McKie said. "Not a proxy, but a client whose acts are brought into question by the case tried."

Mireg revealed Gowachin signs of deep concern.

"Hear me, McKie. I haven't much time."

In a sudden rush of apprehension, McKie focused on the attendant with the blade who stood there partly obscuring the seated Gowachin. Mireg spoke in a swift spill of words.

"By our standards, McKie, you are not yet very well educated in Gowachin necessities. That was our error. And now your... impetuosity has put you into a position which is about to become untenable."

The attendant shifted slightly, arms moving up. McKie glimpsed the blade tip at the attendant's right shoulder.

"Gowachin don't have families as do Humans or even Weaves," Mireg said. "We have graduated advancement into groups which hold more and more responsibility for those beneath them. This was the pattern adopted by our High Command. What you see as a Gowachin family is only a breeding group with its own limited rules. With each step up in responsibility goes a requirement that we pay an increasing price for failure. You ask if I know the price? Ahhh, McKie. The breeding male Gowachin makes

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vare that only the swiftest, most alert of his race survive. A Magister upholds the forms of the Law. The High Command answers to a . . . Mreg. You see? And a Mreg must make only the best decisions. No failures. Thus . . . Laupuk."

As he spoke the final word, the blade in the attendant's hands flashed out and around in a shimmering arc. It caught the seated Gowachin at the neck. Mreg's head, neatly severed, was caught in the loop at the blade's tip, lifted high, then lowered onto the white apron which now was splashed with green gore.

The scene blanked out, was replaced by the Gowachin who had connected McKie with Mreg.

"Aritch wishes to consult his Logum," the Gowachin said.

* * *

In a changing universe, only a changing species can hope to be immortal and then only if its eggs are nurtured in widely scattered environments. This predicts a wealth of unique individuals.

—INSIGHTS (a glimpse of early Human philosophy), Buzob Teet

Jedrik made contact with McKie while he waited for the arrival of Aritch and Ceylang. He had been staring absently at the ceiling, evaluating in a profoundly Dosadi

way how to gain personal advantage from the upcoming encounter with them, when he felt the touch of her mind on his.

McKie locked himself into his body.

"No transfer."

"Of course not."

It was a tiny thing, a subtle shading in the contact which could have been overlooked by anyone with a less accurate simulation model of Jedrik.

"You're angry with me," McKie said.

He projected worry, knew she'd read this correctly.

When she responded, her anger had been reduced to irritation. The point was not the shading of emotion, it was that she allowed such emotion to reveal itself.

"You remind me of one of my early lovers," she said.

McKie thought of where Jedrik was at this moment—safely rocked in the flower-perfumed air of his floating island on the planetary sea of Tetalzee. How strange such an environment must be for a Dosadi . . . no threats, fruit which could be picked and eaten without a thought of poisons. The memories she'd taken from him could coat the island with familiarity, but her flesh would continue to find that a strange experience. His memories—yes. The island would remind her of all those wives he'd taken to the honeymoon bowers of that place.

McKie spoke from this awareness.

"No doubt that early lover failed to show sufficient appreciation of your abilities . . . outside the bedroom, that is. Which one was it . . . ?"

And he named several accurate possibilities, lifting them from the memories he'd taken from Jedrik.

Now, she laughed. He sensed the unstirred response, real humor and unchecked.

McKie was reminded in his turn of one of his early wives, and this made him think of the breeding situation from which Jedrik had come—no confusions between a choice for breeding mate and a lover taken for the available enjoyment of sex. One might even actively dislike the breeding mate.

Lovers . . . Wives . . . What was the difference except for the socially imprinted conventions out of which the roles arose? But Jedrik did remind him of that one particular woman and he explored his memory, wondering if it might help him now in his relationship with Jedrik. He'd been in his mid-thirties and assigned to one of his first personal BuSab cases, sent out with no old-timer to monitor and instruct him. The youngest Human agent in the Bureau's history ever to be released on his own, so it was rumored. The planet had been one of the Yllir group, very much unlike anything in McKie's previous experience; an ingrown place with deep entryways

in all of the houses and an oppressive silence all around. No animals, no birds, no insects . . . just that awesome silence within which a fanatic religion was reported forming. All conversations were low-voiced and full of subtle intonations which suggested an inner communication peculiar to Yllir and somehow making sport with all outsiders not privy to their private code. Very like Dosadi in this.

His wife of the moment, safely ensconced on Tutaloo, had been quite the opposite: gregarious, sportive, noisy.

Something about that Yllir case had sent McKie back to this wife with a sharpened awareness of her needs. The marriage had gone well for a long time, longer than any of the others. And he saw now why Jedrik reminded him of that one: they both protected themselves with a tough armor of femininity, but were extremely vulnerable behind that facade. When the armor collapsed, it collapsed totally. This realization puzzled McKie because he read his own reaction clearly: he was frightened.

In the eyeblink this evaluation took, Jedrik read him:

"We have not left Dosadi. We've taken it with us."

So that was why she'd made this contact, to be certain he mixed this datum into his evaluations. McKie looked out the open window. It would be dusk soon here on Tandaloo. The Gowachia home planet

was a place which had defied change for thousands of standard years. In some respects, it was a backwater.

The ConSciency will never be the same.

The tiny trickle of Dosadi which Aritch's people had hoped to cut off was now a roaring cataract. The people of Dosadi would insinuate themselves into niche after niche of ConScientist civilization. What could resist even the lowliest Dosadi? Laws would change. Relationships would assume profound and subtle differences. Everything from the most casual friendship to the most complex business relationship would take on some Dosadi character.

McKie recalled Aritch's parting question as they'd sent him to the jumpfloor which would put him on Dosadi.

"Ask yourself if there might be a price too high to pay for the Dosadi lesson."

That had been McKie's first clue to Aritch's actual motives and the word *lesson* had bothered him, but he'd missed the implications. With some embarrassment, McKie recalled his glib answer to Aritch's question:

"It depends on the lesson."

True, but how blind he'd been to things any Dosadi would have seen. How ignorant. Now, he indicated to Jedrik that he understood why she'd called such things to his attention.

"Aritch didn't look much beyond

the ways of outrage and injustice . . ."

"And how to turn such things to personal advantage."

She was right, of course. McKie stared out at the gathering dusk. Yes, the species tried to make everything its own. If the species failed, then forces beyond it moved in, and so on, ad infinitum.

I do what I do.

He recalled those words with a shudder, felt Jedrik recoil. But she was proof even against this.

"What powers your ConSciency had."

Past tense, right. And not *our* ConSciency because that already was a thing of the past. Besides . . . she was Dosadi.

"And the illusions of power," she said.

He saw at last what she was emphasizing and her own shared memories in his mind made the lesson doubly impressive. She'd known precisely what McKie's personal ego-focus might overlook. Yet, this was one of the glues which held the ConSciency together.

"Who can imagine himself immune from any retaliation?" he quoted.

It was right out of the BuSab Manual.

Jedrik made no response.

McKie needed no more emphasis from her now. The lesson of history was clear. Violence bred violence. If this violence got out of hand, it

ran a course depressing in its repetitive pattern. More often than not, that course was deadly to the innocent, the so-called 'enlightenment phase.' The ex-innocents ignited more violence and more violence until either reason prevailed or all was destroyed. There was a sufficient number of cruder blocks which once had been planks to make the lesson clear. Dosadi had come within a hair of joining that uninhabited, uninhabitable list.

Before breaking contact, Adrik had another point to make.

"You recall that in those final days, Broxy increased the rations for his Human auxiliaries, his way of saying to them: 'You'll be turned out onto the Rim soon to fend for yourselves.'"

"A *Dosadi* way of saying that."

"Correct. We always held that thought in reserve: That we should breed in such numbers that some would survive no matter what happened. We would thus begin producing species which could survive there without the city of Chu . . . or any other city designed solely to produce non-poisonous foods."

"But there's always a bigger force waiting in the wings."

"Make sure Aritch understands that."

* * *

Choose containable violence when violence cannot be avoided. Better this

than epidemic violence

—Lessons of Choice.

The RuSob Manual

The senior attendant of the Court-arena, a squat and dignified Gowachin of the Assumptive Phylum, confronted McKie at the arena door with a confession:

"I have delayed informing you that some of your witnesses have been excluded by Prosecution challenge."

The attendant, whose name was Durak, gave a Gowachin shrug, waited.

McKie glanced beyond the attendant at the truncated oval of the arena entrance which framed a lower section of the audience seats. The seats were filled. He had expected some such challenge for the first morning session of the trial, saw Durak's words as a vital revelation. They were accepting his gambit. Durak had signalled a risky line of attack by those who guided Ceylang's performance. They expected McKie to protest. He glanced back at Aritch who stood quietly submissive three steps behind his Legum. Aritch gave every appearance of having resigned himself to the arena's conditions.

"*The form must be obeyed.*"

Beneath that appearance lay the hoary traditions of Gowachin Law—*The guilty are innocent. Governments always do evil.*

Legislators put their own interests first. Defense and prosecution are brother and sister . . . Suspect everything.

Artich's Legem controlled the initial posture and McKie had chosen defense. It hadn't surprised him to be told that Caylang would prosecute. McKie had countered by insisting that Broey sit on a judicial panel which would be limited to three members. This had caused a delay during which Bildoon had called McKie, probing for any betrayal. Bildoon's approach had been so obvious that McKie had at first suspected a feint within a feint.

"McKie, the Gowachin fear that you have a Calchan at your command. That's a force which they . . ."

"The more they fear the better."

McKie had stared back at the screen-framed face of Bildoon, observing the signs of strain. Jedrik was right; the non-Dosadi were very easy to read.

"But I'm told you left this Dosadi in spite of a Calchan contract which prohibited . . ."

"Let them worry. Good for them."

McKie watched Bildoon intently without betraying a single emotion. No doubt there were others monitoring this exchange. Let them begin to see what they faced. Puppet Bildoon was not about to uncover what those shadowy forces wanted. They had Bildoon here on Tandaloer, though, and this told McKie an es-

sential fact. The PanSpecial chief of BuSab was being offered as bait. This was precisely the response McKie sought.

Bildoon had ended the call without achieving his purpose. McKie had nibbled only enough to insure that Bildoon would be offered again as a bait. And the puppet masters still feared that McKie had a Calchan at his beck and call.

No doubt the puppet masters had tried to question their God Wall Calchan. McKie hid a smile, thinking how that conversation must have gone. The Calchan had only to quote the letter of the contract and if the questioners became accusatory the Calchan would respond with anger, ending the exchange. And the Calchan's words would be so filled with terms subject to ambiguous translation that the puppet masters would never be certain of what they heard.

As he stared at the patiently waiting Darak, McKie saw that they had a problem, those shadowy figures behind Artich. Laupuk had removed Mneg from their councils and his advice would have been valuable now. McKie had deduced that the correct reference was "The Mneg" and that Artich headed the list of possible successors. Artich might be Dosadi-trained, but he was not Dosadi-born. There was a lesson in this that the entire ConSentency would soon learn.

And Broey as a judge in this case remained an unchangeable fact.

Broey was Dosadi-born. The Caledonian contract had kept Broey on his poison planet but it had not limited him to a Gowachin body. Broey knew what it was to be both Human and Gowachin. Broey knew about the Pcharkys and their use by those who'd held Dosadi in bondage. And Broey was now Gowachin. The forces opposing McKie dared not name another Gowachin judge. They must choose from the other species. They had an interesting quarry. And without a Caledonian assistant, there were no more Pcharkys to be had on Dosadi. The most valuable coin the puppet masters had to offer was lost to them. They'd be desperate. Some of the older ones would be very desperate.

Footsteps sounded around the turn of the corridor behind Arfich. McKie glanced back, saw Ceylang come into view with her attendants. McKie counted no less than twenty leading Legems around her. They were out in force. Not only Gowachin pride and integrity but their sacred view of Law stood at issue. And the desperate ones stood behind them, goading. McKie could almost see those shadowy figures in the shape of this entourage.

Ceylang, he saw, wore the black robes and white-striped hood of Legem Prosecutor, but she'd thrown back the hood to free her mandibles. McKie detected tension in her movements.

She gave no sign of recognition but McKie saw her through Dosadi

eyes.

I frighten her. And she's right.

Turning to address the waiting attendant and speaking loudly to make sure that the approaching group heard, McKie said:

"Every law must be tested. I accept that you have given me formal announcement of a limit on my defense."

Darak, expecting outraged protest and a demand for a list of the excluded witnesses, showed obvious confusion.

"Formal announcement?"

Ceylang and entourage came to a stop behind Arfich.

McKie went on in the same loud voice.

"We stand here within the sphere of the Courtarena. All matters concerning a dispute in the arena are formal in this place."

The attendant glanced at Ceylang, seeking help. This response threatened him Darak, hoping someday to be a High Magister, should now be recognizing his inadequacies. He would never make it in the politics of the Gowachin Phyla, especially not in the coming Dosadi age.

McKie explained as though to a neophyte:

"Information to be verified by my witnesses is known to me in its entirety. I will present the evidence myself."

Ceylang, having stooped to hear a low-voiced comment from one of her Gowachin advisors, showed

surprise at this. She raised one of her ropey tendrils, called: "I protest. The Defense Legion cannot give . . ."

"How can you protest?" McKie interrupted. "We stand here before no judicial panel empowered to rule on any protest."

"I make *formal* protest!" Ceylang insisted, ignoring an advisor on her right who was tugging at her sleeve.

McKie permitted himself a cold smile.

"Very well. Then we must call Darak into the arena as witness, he being the only party present who is outside our dispute."

The edges of Arich's jaws came down in a Gowachin grimace.

"At the end, I warned them not to go with the Weave," he said. "They cannot say they came here unarmed."

Too late, Ceylang saw what had happened. McKie would be able to question Darak on the challenges to the witnesses. Some of those challenges were certain to be overturned. At the very least, McKie would know who the Prosecution feared. He would know it in time to act upon it. There would be no delays valuable to Prosecution. Tension, fear and gride had made Ceylang act precipitately. Arich had been right to warn them but they counted on McKie's fear of the interlocked Weave triads. Let them count. Let them blunt their awareness on that and on a useless con-

cern over the excluded witnesses.

McKie motioned Darak through the doorway into the arena, heard him utter an oath. The reason became apparent as McKie pressed through in the crowded surge of the Prosecutor's party. The instruments of Truth-by-Pain had been arrayed on their ancient rack below the judges. Seldom brought out of their wrappings even for display to visiting dignitaries these days, the instruments had not been employed in the arena within the memory of a living witness. McKie had expected this display. It was obvious that Darak and Ceylang had not. It was interesting to note the members of Ceylang's entourage who were watching for McKie's response.

He gave them a grin of satisfaction.

McKie turned his attention to the judicial panel. They had given him Broey. The CoeSentienty, acting through BuSab, held the right of one appointment. Their choice delighted McKie. But, indeed! Bildoorn occupied the seat on Broey's right. The PanSports chief of bureau sat there all bland and reserved in his unfamiliar Gowachin robes of water green. Bildoorn's fa-ceted eyes glittered in the harsh arena lighting. The third judge had to be the Gowachin choice undoubtedly maneuvered (as Bildoorn had been) by the puppet masters. It was a Human and McKie, recognizing him, missed a step, recovered his balance with a visible effort.

What were they doing?

The third judge was named Mordecai Parando, a noted challenger of BuSab actions. He wanted BuSab eliminated—either outright or by removing some of the bureau's key powers. He came from the planet Lirat, which provided McKie with no surprises. Lirat was a natural cover for the shadowy forces. It was a place of enormous wealth and great private estates guarded by their own security forces. Parando was a man of somewhat superficial manners which might conceal a genuine sophisticate, knowledgeable and crafty, or a completely ruthless autocrat of Booby's stamp. He was certainly Dosadi-trained. And his features bore the look of the Dosadi Rim.

There was one more fact about Parando which no one outside Lirat was supposed to know. McKie had come upon it quite by chance while investigating a Palenki who'd been an estate guard on Lirat. The turtle-like Palenki were notoriously dull, employed chiefly as muscle. This one had been uncommonly observant.

"Parando makes advice on Gowachin Lea."

This had been responsive to a question about Parando's relationship with the estate guard being investigated. McKie, not seeing a connection between question and answer, had not pursued the matter but had tucked this datum away for future investigation. He had been

slightly interested at the time because of the rumored existence of a legalist enclave on Lirat and such enclaves had been known to test the limits of legality.

The people behind Arich would expect McKie to recognize Parando. Would they expect Parando to be recognized as a legalist? They were certain to know the danger of putting Parando on a Gowachin beach. Professional legalists were absolutely prohibited from Gowachin judicial service.

"Let the people judge."

Why would they need a legalist here? Or were they expecting McKie to recognize the Rim origins of Parando's body? Were they warning McKie not to raise that issue here? Body exchange and the implications of immortality represented a box of snakes no one wanted to open. And the possibility of one species spying on another. . . . There was fragmentation of the ConSentience latent in this case. More ways than one.

If I challenge Parando, his replacement may be more dangerous. If I expose him as a legalist after the trial starts. Could they expect me to do that? Let us explore it?

Knowing he was watched by countless eyes, McKie swept his gaze around the arena. Above the soft green absorbent oval where he stood were rank on rank of benches, every seat occupied. Mixed morning light from the domed translucent

ceiling illuminated rows of Humans, Gowachin, Palenki, Sobarips . . . McKie identified a cluster of forest Weavies just above the arena, limber this with a sinuous flexing in every movement. They would bear watching. But every species and faction in the ConSentientcy would be represented here. Those who could not come in person would watch these proceedings via the glittering transmitter eyes which looked down from the ceiling's edges.

Now, McKie looked to the right at the witness pen set into the wall beneath the ranked benches. He identified every witness he'd called, even the challenged ones. The forms were being obeyed. While the ConSentient Covenant required certain modifications here, this arena was still dominated by Gowachin Law. To accent that, the blue metal box from the Running Phylum occupied the honor place on the bench in front of the judicial panel.

Who will raise the knife here?

Protocol demanded that Prosecutor and Defense approach to a point beneath the judges, abase themselves and call out acceptance of the arena's conditions. The Prosecutor's party, however, was in disarray. Two of Ceylang's advisers were whispering excited advice to her.

The members of the judicial panel conferred, glancing at the scene below them. They could not act formally until the obeisance.

McKie passed a glance across the

panel, absorbed Broey's posture. The Dosadi Gowachin's enlightened greed was like an anchor point. It was like Gowachin Law, changeable only on the surface. And Broey was but the tip of the Dosadi advisory group which Jedrik had approved.

Holding his arms extended to the sides, McKie marched forward, abased himself face down on the floor, stood and called out:

"I accept this arena as my friend. The conditions here are my conditions but Prosecution has defiled the sacred traditions of this place. Does the court give me leave to slay her outright?"

There was an exclamation behind him, the sound of running, the sudden flopping of a body onto the arena's matted floor. Ceylang could not address the court before this obeisance and she knew it. She and the others now also knew something else just as important—that McKie was ready to slay her despite the threat of Weave vendetta.

In a breathless voice, Ceylang called out her acceptance of the arena's conditions, then:

"I protest this trick by Defense Legum!"

McKie saw the stinging of Gowachin in the audience. A trick? Didn't Ceylang know yet how the Gowachin dearly loved legal trials?

The members of the judicial panel had been thoroughly briefed on the surface demands of the Gowachin forms, though it was

doubtful that Bildeon understood sufficiently what went on beneath those forms. The PanSpeech confirmed this now by leaning forward to speak.

"Why does the senior attendant of this court enter ahead of the Legatus?"

McKie detected a fleeting smile on Broey's face, glanced back to see Darak vanding apart from the prosecution throng, alone and trembling.

McKie took one step forward.

"Will the court direct Darak to the witness pen? He is here because of a formal demand by the Prosecutors."

"This is the senior attendant of your Court," Ceylang argued. "He guards the door to . . ."

"Prosecution made formal protest to a matter which occurred in the presence of this attendant," McKie said. "As an attendant, Darak stands outside the conflicting interests. He is the only reliable witness."

Broey stirred, looked at Ceylang, and McKie realized how strange the Wreave must appear to a Dosadi. This did not deter Broey, however.

"Did you protest?"

It was a direct question from the bench. Ceylang was required to answer. She looked to Bildeon for help but he remained silent. Parado also refused to help her. She glanced at Darak. The terrified attendant could not take his attention from the instruments of pain.

Perhaps he knew something specific about their presence in the arena.

Ceylang tried to explain.

"When Defense Legatus suggested an illegal . . ."

"Did you protest?"

"But the . . ."

"This court decides on all matters of legality. Did you protest?"

"I did."

It was forced out of her. A fit of trembling passed over the slender Wreave form.

Broey waved Darak to the witness pen, had to add a vocal order when the frightened attendant failed to understand. Darak almost ran to the shelter of the pen.

Silence pervaded the arena. The silence of the audience was an explosive thing. They sat poised in the watching ovals, all of those species and factions with their special fears. By now, they'd heard many stories and rumors. Amploors had spread the Dosadi cruelties all across the ConSentientcy. Media representatives had been excluded from Dosadi and this court on the Gowachin argument that they were "pry to uninformed subjective reactions," but they would be watching here through the transmitter eyes at the ceiling.

McKie looked around at nothing in particular but took in every detail. There were more than three judges in this arena and Ceylang certainly must realize that. Gowachin Law turned upon itself, existing "only to be changed." But

that watching multitude was quite another matter. Ceylan must be made to understand that she was a sacrifice of the arena. Consentient opinion stood over her like a heavy sledge ready to smash down.

It was Parado's turn.

"Will opposing Legams make their opening arguments now?"

"We can't proceed while a formal protest is undecided," McKie said.

Parado understood. He glanced at the audience, at the ceiling. His actions were a direct signal: Parado knew which judge really decided here. To emphasize it, he ran a hand from the front of his neck down his chest, the unique Rim Raiders' salute from Dosadi signifying 'Death before surrender.' Subtle hints in the movement gave McKie another datum: Parado was a Gowachin in a Human body. They'd dared put two Gowachin on that panel!

With Dosadi insight, McKie saw why they did this. They were prepared to produce the Calchan contract here. They were telling McKie that they would expose the body-exchange secret if he forced them to it. All would see that loophole in the Calchan contract which confined the Dosadi-born but released outsiders in Dosadi flesh.

They think I am really Jedrik in this flesh!

Parado revealed even more. His people intended to find the Jedrik body and kill it, leaving this McKie

flesh forever in doubt. He could protest his McKie identity all he wanted. They had but to demand that he prove it. Without the other person. . . . What had their God Wall Calchan told them?

"He is McKie, she is McKie. He is Jedrik, she is Jedrik."

His mind in turmoil, McKie wondered if he dared risk an immediate mind contact with Jedrik. Together, they'd already recognized this danger. Jedrik had hidden herself on McKie's hideaway, a floating island on Tushoo. She was there with a special Taptivist contract prohibiting unwanted calls which might inadvertently reveal her location.

The judges, led by Parado, were acting, however, moving for an immediate examination of Darrk. McKie forced himself to perform as a Legam.

His career in ruins, the attendant answered like an automaton. In the end, McKie restored most of his witnesses. There were two notable exceptions. Grink (that flawed thread which might have led to The Mireg) and Stiggy. McKie was not certain why they wanted to exclude the Dosadi weapons genius who'd transformed a BaSab wallet's contents into instruments of victory. Was it that Stiggy had broken an unbreakable code? That made sense only if Prosecution intended to play down the inherent Dosadi superiority.

Still uncertain, McKie prepared

to refuse and seek a way to avoid Parado's gambit but Ceylang addressed the bench.

"The issue of witnesses having been introduced by Defense," she said, "Prosecution wishes to explore this issue. We note many witnesses from Dosadi called by Defense. There is a noteworthy omission whose name has not yet been introduced here. I refer to a Human by the name of Jedrik. Prosecution wishes to call Kerla Jedrik as . . ."

"One moment!"

McKie searched his mind for the forms of an acceptable escape. He knew that his blurted protest had revealed more than he wanted. But they were moving faster than he'd expected. Prosecution did not really want Jedrik as a witness, not in a Gowachin Courtaress where the rules were never quite what they appeared to non-Gowachin. This was a plain message to McKie.

"We're going to find her and kill her."

With Bldoon and Parado concurring, a jumpdoor was summoned and Ceylang played her trump.

"Defense knows the whereabouts of witness Kerla Jedrik."

They were forcing the question, aware of the emotional bond between McKie and Jedrik. He had a choice: argue that a personal relationship with the witness excluded her. But Prosecution and all the judges had to concur. They obviously would not do this . . . not

yet. A harsh look on his mistress's, McKie gave the jumpdoor instructions.

Presently, Jedrik stepped onto the arena floor, faced the judges. She'd been into the wardrobe at his bowser cottage and wore a yellow and orange sari among which emphasized her height and grace. Open brown sandals protected her feet. There was a flame red blossom at her left ear. She managed to look exotic and fragile.

Broey spoke for the judges.

"Do you have knowledge of the issues at trial here?"

"What issues are at trial?"

She asked it with a childlike innocence which did not even fool Bldoon. They were forced to explain, however, because of those other judges to whom every nuance here was vital. She heard them out in silence.

"An alleged experiment on a sentient population confined to a planet called Dosadi . . . lack of informed consent by subject population charged . . . accusations of conspiracy against certain Gowachin and others not yet named . . ."

Two fingers pressed to his eyes in the guise of intense listening, McKie made contact with Jedrik, suggesting, conferring. They had to find a way out of this trap! When he looked up, he saw the suspicions in Parado's face. Which body, which ego? McKie? Jedrik?

In the end, Ceylang hammered home the private message, demand-

ing whether Jedrik had "any personal relationship with Defense Legum?"

Jedrik answered in a decidedly un-Dosadi fashion.

"Why . . . yes. We are lovers."

In itself, this was not enough to exclude her from the arena unless Prosecution and the entire judicial panel agreed. Crylang proposed the exclusion. Beldoon and Parado were predictable in their agreement. McKie waited for Broey.

"Agreed."

Broey had a private compact with the shadow forces then. Jedrik and McKie had expected this but had not anticipated the form confirmation would take.

McKie asked for a recess until the following morning.

With the most benign face on it, this was granted. Broey announced the decision, smiling down at Jedrik. It was a measure of McKie's Dosadi conditioning that he could not find it in himself to blame Broey for wanting personal victory over the person who had beaten him on Dosadi.

Back in his quarters, Jedrik put a hand on McKie's chest, spoke with eyes lowered.

"Don't blame yourself, McKie. This was inevitable. Those judges, none of them, would've allowed any protest from you before seeing me in person on that arena floor."

"I know."

She looked up at him, smiling.

"Yes . . . of course. How like

one person we are."

For a time after that, they reviewed the assessment of the aides chosen for Broey. Shared memories etched away at minutiae. Could any choice be improved? Not one person was changed—Human or Gowachin. All of those advisors and aides were Dosadi-born. They could be depended upon to be loyal to their origins, to their conditioning, to themselves individually. For the task assigned to them, they were the best available.

McKie brought it to a close.

"I can't leave the immediate area of the arena until the trial's over."

She knew that, but it needed saying.

There was a small cell adjoining his office, a bedchamber, communications instruments, Human toilet facilities. They delayed going into the bedroom, turned to a low-key argument over the advisability of a body exchange. It was procrastination on both sides, outcome known in advance. Familiar flesh was familiar flesh, less distracting. It gave each of them an edge which they dared not sacrifice. McKie could play Jedrik and Jedrik could play McKie, but that would be dangerous play now.

When they retired, it was to make love, the most tender experience either had known. There was no submission, only a giving, sharing, an open exchange which tightened McKie's throat with joy and fear, sent Jedrik into a fit of un-

Dosadi sobbing.

When she'd recovered, she turned to him on the bed, touched his right cheek with a finger.

"McKie."

"Yes?"

"I've never had to say this to another person, but . . ." She silenced his attempted interruption by punching his shoulder, leaning up on an elbow to look down at him. It reminded McKie of their first night together and he saw that she had gone back into her Dosadi shell . . . but there was something else, a difference in the eyes.

"What is it?"

"Just that I love you. It's a very interesting feeling, especially when you can admit it openly. How odd."

"Stay here with me."

"We both know I can't. There's no safe place here for either of us . . . but the one who . . ."

"Then let's . . ."

"We've already decided against an exchange."

"Where will you go?"

"Best you don't know."

"If . . ."

"No! I wouldn't be safe as a witness; I'm not even safe at your side. We both . . ."

"Don't go back to Dosadi."

"Where is Dosadi? It's the only place where I could ever feel at home, but Dosadi no longer exists."

"I meant . . ."

"I know."

She sat up, hugged her knees, revealing the sinewy muscles of her shoulders and back. McKie studied her, trying to fathom what it was she hid in that Dosadi shell. Despite the intimacy of their shared memories, something about her eluded him. It was as though he didn't want to learn this thing. She would flee and hide, of course, but . . . He listened carefully as she began to speak in a far away voice.

"It'd be interesting to go back to Dosadi someday. The difference . . ."

She looked over her shoulder at him.

"There are those who fear we'll make over the ConSentieny in Dosadi's image. We'll try, but the result won't be Dosadi. We'll take what we judge to be valuable, but that'll change Dosadi more than it changes you. Your masses are less alert, slower, less resourceful, but you're so numerous. In the end, the ConSentieny will win, but it'll no longer be the ConSentieny I wonder what it'll be when . . ."

She laughed at her own musing, shook her head.

"And there's Broey. They'll have to deal with Broey and the scorn we've given him. Broey Plus! Your ConSentieny hasn't the faintest grasp of what we've loosed among them."

"The predator in the flock."

"To Broey, your people are like the Rim—a natural resource."

"But he has no Petarkys."

"Not yet."

"I doubt if the Calaburn ever again will participate in . . ."

"There may be other ways. Look how easy it is for us."

"But we were printed upon each other by . . ."

"Exactly! And they continue to suspect that you're in my body and I'm in yours. Their entire experience precludes the free shift back and forth, one body to another . . ."

"On this other thing . . ."

He caressed her mind

"Yes! Bracy won't suspect until too late what's in store for him. They'll be a long time learning there's no way to sort you from . . . me!"

This last was an exultant shout as she tumbled and fell upon him. It was a wild replay of their first night together. McKie abandoned himself to it. There was no other choice, no time for the mind to dwell on depressing thoughts.

In the morning, he had to tap his implanted amplifiers to bring his awareness to the required pitch for the arena. The process took a few minutes while he dressed.

Jedrik moved softly with her own preparations, straightened the bedclothes and caressed its resilient surface. She summoned a jumpdoor then, held him with a lingering kiss. The jumpdoor opened behind her as she pushed away from him.

McKie smelled familiar flowers, glimpsed the towers of his Tutahac

island before the door blinked out of existence, hiding Jedrik and the island from him. Tutahac? The moment of shocked understanding delayed him. She'd counted on that! He recovered, sent his mind leaping after her.

I'll force an exchange! By the Gods!

His mind met pain, consuming, blinding pain. It was agony such as he'd not even imagined could exist. *Jedrik!*

His mind held an unconscious Jedrik whose awareness had fled from pain. The contact was so delicate, like holding a newborn infant. The slightest relaxation and he knew he would lose her to . . . He felt that terrifying monster of the first exchange hovering in the background, but love and concern armed him against fear.

Frantic, McKie held that tenuous contact while he called a jumpdoor. There was a small delay and when the door opened, he saw through the portal the black, twisted wreckage which had been his bower island.

A hot sun beat down on steaming cinders. And in the background, a warped metal object which might have been one of Tutahac's little four-place flippers, rolled over, gurgled and sank. The visible wreckage said the destructive force had been something like a posthoic, swift and all-consuming. The water around the island still bubbled with it.

Even while he watched, the is-

land began breaking up, its cinders drifting apart on the long, low waves. A breeze flattened the steaming smoke. Soon, there'd be nothing to show that beauty had floated here. With a penetrate, there would be nothing to recover . . . not even bodies to . . .

He hesitated, still holding his fragile grasp on Jedrik's unconscious presence. The pain was only a memory now. Was it really Jedrik in his awareness, or only his remembered imprint of her? He tried to awaken the sleeping presence, failed. But small threads of memory emerged and he saw that the destruction had been Jedrik's doing, response to attack. The attackers had wanted a live hostage. They hadn't anticipated that violent, unmissable message.

"You won't hold me over McKie's head!"

But if there were no bodies . . .

Again, he tried to awaken that unconscious presence. Her memories were there, but she remained dormant. The effort strengthened his grip upon her presence, though. And he told himself it had to be Jedrik or he wouldn't know what had happened on the bower island.

Once more, he searched the empty water. Nothing. A penetrate would've torn and battered everything around it. Shards of metal, flesh reduced to scattered cinders . . .

She's dead. She has to be dead.

A penetrate . . .

But that familiar presence lay slumbering in his mind.

The door clacker interrupted his reverie. McKie released the jumpdoor, turned to look through the bedside viewer at the scene outside his Legam quarters. The expected deputation had arrived. Confident, the puppet masters were moving even before confirmation of their Totalisee gambit. They could not possibly know yet what McKie knew. There could be no jumpdoor or any other thread connecting this group to Totalisee.

McKie studied them carefully, keeping a bridle on his rage. There were eight of them, so unstained, so well schooled in Dosadi self-control. So transparent to a Jedrik-amplified McKie. They were four Humans and four Gowachin. Overconfident, Jedrik had seen to that by leaving no survivors.

Again, McKie tried to awaken that unconscious presence. She would not respond.

Have I only built her out of my memories?

There was no time for such speculation. Jedrik had made her choice on Totalisee. He had other choices to make here and now—for both of them. That ghostly presence locked in his mind would have to wait.

McKie punched the communicator which linked him to Broey, gave the agreed upon signal.

"It's time."

He composed himself then, went to the door.

They'd sent no underlings. He gave them that. But they addressed him as Jedrik, made the anticipated demands, gloated over the hold they had upon him. It was only then that McKie saw fully how well Jedrik had measured these people . . . and how she had played upon her McKie in those last hours together like an exquisitely tuned instrument. Now, he understood why she'd made that violent choice.

As anticipated, the members of the delegation were extremely surprised when Brocy's people fell upon them without warning.

For the Gowachin, to stand alone against all adversity is the most sacred moment of existence.

—The Gowachin,
a BuSob analysis

The eight prisoners were dumped on the arena floor, bound and shackled. McKie stopped near them, waiting for Ceylang to arrive. It was not yet dawn. The ceiling above the arena remained dark. A few of the transmitter eyes around the upper perimeter glistered to reveal that they were activated. More were coming alive by the moment. Only a few of the witness seats were occupied but people were

swarming in as word was passed. The judicial bench remained empty.

The outer area way was a din of courtesans security forces coming and going, people shouting orders, the clank of weapons, a sense of complete confusion there which gradually resolved itself as Brocy led his fellow judges up onto their bench. The witness pen was also filling, people punching sleep from their eyes, great gaping yawns from the Gowachin.

McKie looked to Brocy's people, the ones who'd brought in the prisoners. He nodded for the captors to leave, giving them a Dosadi hand signal to remain available. They left. Ceylang passed them as she entered still fastening her robe. She hurried to McKie's side, waited for the judges to be seated before speaking.

"What is the meaning of this? My attendants . . ."

Brocy signalled McKie.

McKie stepped forward to address the bench, pointed to the eight bound figures who were beginning to stir and push themselves upright.

"Here you see my client."

Parado started to speak but Brocy silenced him with a sharp word which McKie did not catch. It sounded like "frenzy."

Bildoon sat in fearful fascination, unable to wrest his attention from the bound figures, all of whom remained silent. Yes, Bildoon would recognize those eight prisoners. In his limited, ConScientist fashion

Bideon was sharp enough to recognize that he was in personal danger. Parado, of course, knew this immediately and watched Brooy with great care.

Again, Brooy nodded to McKie.

"A fraud has been perpetrated upon this court," McKie said. "It is a fraud which was perpetrated against those great and gallant people, the Gowachin. Both Prosecution and Defense are its victims. The Law is its ultimate victim."

It had grown much quieter in the arena. The observer seats were jammed, all the transmitter eyes alive. The faintest of dawn glow touched the translucent ceiling. McKie wondered what time it was. He had forgotten to put on any timepiece.

There was a stir behind McKie. He glanced back, saw attendants belatedly bringing Artch into the arena. Oh, yes—they would have risked any delay to confer with Artch. Artch was supposed to be the other McKie expert. Too bad that this Human who looked like McKie was no longer the McKie they thought they knew.

Crylang could not hold her silence. She raised a tendril for attention.

"This Tribunal . . ."

McKie interrupted.

" . . . is composed of three people. Only three."

He allowed them a moment to digest this reminder that Gowachin

trial formalities still dominated this arena and were like no other such formalities in the Confederency. It could've been fifty judges up there on that bench. McKie had witnessed Gowachin trials where people were picked at random off the streets to sit in judgement. Such jurists took their duties seriously, but their overt behavior could lead another Sentient species to question this. The Gowachin chattered back and forth, arranged parties, exchanged jokes, asked each other ridd questions. It was an ancient pattern. The jurists were required to become "a single organism." Gowachin had their own ways of rushing that process.

But this Tribunal was composed of just three judges, only one of them visibly Gowachin. They were separate entities, their actions heavy with mannerisms foreign to the Gowachin. Even Brooy, tainted by Dosadi, would be unfamiliar to the Gowachin observers. No "single organism" here holding to the immutable forms beneath Gowachin Law. That had to be deeply disturbing to the Legatus who advised Crylang.

Brooy leaned forward, addressed the arena.

"We'll dispense with the usual arguments while this new development is explored."

Again, Parado tried to interrupt. Brooy silenced him with a glance.

"I call Artch of the Burning Phylum," McKie said.

He turned.

Ceylang stood in mute indecision. Her advisers remained at the back of the arena conferring among themselves. There seemed to be a difference of opinion among them.

Artich shuffled to the death-focus of the arena, the place where every witness was required to stand. He glanced at the instruments of pain arrayed beneath the judicial bench, cast a wary look at McKie. The old High Magister appeared harned and undignified. That hurried conference to explore this development must've been a sore trial to the old Gowachin.

McKie crossed to the formal position beside Artich, addressed the judges.

"Here we have Artich, High Magister of the Running Phytum. We were told that if guilt were to be found in this arena, Artich bore that guilt. He, so we were led to believe, was the one who made the decision to imprison Dosadi. But how can that be so? Artich is old, but he isn't as old as Dosadi. Then perhaps his alleged guilt is to be found in concealing the imprisonment of Dosadi. But Artich summoned an agent of BuSab and sent that agent openly to Dosadi."

A disturbance among the eight shackled prisoners interrupted McKie. Several of the prisoners were trying to get to their feet but the links of the shackles were too short.

On the judicial bench, Parando started to lean forward, but Brooy

hastled him back.

Yes, Parando and others were recalling the verities of a Gowachin Courtroom, the constant reversal of concepts common throughout the seat of the Confederacy.

*To be guilty is to be innocent.
Thus, to be innocent is to be guilty.*

At a sharp command from Brooy, the prisoners grew quiet.

McKie continued.

"Artich, conscious of the sacred responsibilities which he carried upon his back as a mother carries her task, was deliberately harned to receive the punishment blow lest that punishment be directed at all Gowachin everywhere. Who chose this innocent High Magister to suffer for all Gowachin?"

McKie pointed to the eight shackled prisoners.

"Who are these people?"

Parando demanded.

McKie allowed the question to hang there for a long count. Parando knew who these eight were. Did he think he could direct the present course of events by such a blatant ploy?

Presently, McKie spoke.

"I will enlighten the court in due course. My duty, however, comes first. My client's innocence comes first."

"One moment."

Brooy held up a wetted hand.

One of Ceylang's advisers hurried past McKie, asked and received permission to confer with Ceylang. A thwarted Parando sat like a con-

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demned man watching this conversation as though he hoped to find reprieve there. Hildoon had hunched forward, head buried in his arms. Brooy obviously controlled the Tribunal.

The advisor Lagag was known to McKie, one Lagag of a middling reputation, an officer in the Shouting Phylum. He appeared pale as though recently out of breeding. His words to Ceylang were low and intense, demanding.

The conference ended. Lagag turned back to his companions. They now understood the tenor of McKie's defense. Artich must have known all along that he could be sacrificed here. The Consensient Covenant no longer permitted the ancient custom where the Gowachin

audience had poured into the arena to kill with bare hands and claws the newest defendant. But let Artich walk from here with the brand of innocence upon him; he would not take ten paces outside the arena's precincts before being torn to pieces.

There'd been worried admiration in the glance Lagag had given McKie in passing. Yes, now they understood why McKie had maneuvered for a small and vulnerable judicial panel.

The eight prisoners began a new disturbance which Brooy silenced with a shout. He signalled for McKie to continue.

"Artich's design was that I expose Dosadi, return and defend him against the charge that he had per-

mined illegal psychological experiments upon an unsuspecting populace. He was prepared to sacrifice himself for others."

McKie sent a wary glance at Artich. Let the High Magister try to fight in half-truths in that defense?

"Unfortunately, the Dosadi populace was not unsuspecting. In fact, forces under the command of Keila Jedrik had moved to take control of Dosadi. Judge Broey will affirm that she had succeeded in this."

Again, McKie pointed to the shackled prisoners.

"But these conspirators, these people who designed and profited from the Dosadi experiment, ordered the death of Keila Jedrik! She was murdered this morning on Tutalsee to prevent my using her at the proper moment to prove Artich's innocence. Judge Broey is witness to the truth of what I say. Keila Jedrik was brought into this arena yesterday only that she might be traced and killed!"

McKie raised both arms in an eloquent gesture of completion, lowered his arms.

Artich looked stricken. He saw it. If the eight prisoners denied the charges, they faced Artich's fate. And they must know by now that Broey wanted them Gwawhigwity. They could bring in the Caliban contract and expose the body-exchange plot, but that risked having McKie defend or prosecute them because he'd already locked

them to him as the actual *claw* behind Artich. Broey would affirm this, too. They were at Broey's mercy. If they were Gwawhigwity, they walked free only here on Tantaloor. Innocent, they died here.

As though they were one organism, the eight turned their heads and looked at Artich. Indeed! What would Artich do? If he agreed to sacrifice himself, the eight might live.

Ceylang, too, focused on Artich.

Around the entire arena there was a sense of collective-held breath.

McKie watched Ceylang. How candid had Artich's people been with their Weaver? Did she know the full Dosadi story?

She broke the silence, exposing her knowledge. She chose to aim her attack at McKie on the well-known dictum that, when all else failed, you tried to discredit the opposing Legum.

"McKie, is this how you defend these eight people whom only you name as client?" Ceylang demanded.

Now, it was delicate. Would Broey go along?

McKie countered her probe with a question of his own?

"Are you suggesting that you'd prosecute these people?"

"I didn't charge them! You did."

"To prove Artich's innocence."

"But you call them client. Will you defend them?"

A collective gasp arose from the

cluster of advisors behind her near the arena doorway. They'd seen the map. If McKie accepted her challenge, the judges had no choice but to bring the eight into the arena under Gowachin forms. Ceylang had trapped herself into the posture of prosecutor against the eight. She'd said, in effect, that she affirmed their guilt. Doing so, she lost her case against Aritch and her life was immediately forfeit. She was caught.

Her eyes glistened with the unspoken question.

What would McKie do?

Not yet, McKie thought. Not yet, my precious Wreave daps.

He turned his attention to Parado. Would they dare introduce the Calchan contract? The eight prisoners were only the exposed tip of the shadowy forces, a vulnerable tip. They could be sacrificed. It was clear that they saw this and didn't like it. No Gowachin Mrengs here with that iron submission to responsibility. They loved life and its power, especially the ones who were Human flesh. How precious life must be for those who'd lived many lives! Very desperate, indeed.

To McKie's Dosadi-condemned eyes, it was as though he read the prisoners' thoughts. They were silent if they remained silent. Trust Parado. Rely on Broey's enlightened greed. At the worst, they could live out what life was left to them here on Tardaloor, hoping for new bodies before the flesh they

now wore ran out of vitality. As long as they still lived they could hope and scheme. Perhaps another Calchan could be hired, more Pcharkys found.

Aritch broke, unwilling to lose what had almost been his.

The High Magister's Tardaloor accent was hoarse with protest.

"But I did supervise the tests on Dosadi's population!"

"To what tests do you refer?"

"The Dosadi . . ."

Aritch fell silent, seeing the map. More than a million Dosadi Gowachin already had left their planet. Would Aritch make targets of them? Anything he said could open the door to proof that the Dosadis were superior to non-Dosadis. Any Gowachin (or Human, for that matter) could well become a target in the next few minutes. One had only to denounce a selected Human or Gowachin as Dosadi. Conscientious fears would do the rest. And any of his arguments could be directed into exposure of Dosadi's real purpose. He obviously saw the peril in that, had seen it from the first.

The High Magister confirmed this analysis by glancing at the ferret Wreaves in the audience. What consternation it would create among the secretive Wreaves to learn that another species could masquerade successfully as one of their own!

McKie could not leave matters where they stood, though. He threw a question at Aritch.

"Were the original transportees to Dosadi apprised of the nature of the project?"

"Only they could testify to that."

"And their memories were erased. We don't even have historical testimony on this matter."

Aritch remained silent. Eight of the original designers of the Dosadi project sat near him on the arena floor. Would he denounce them to save himself? McKie thought not. A person deemed capable of performing as The Mweg could not possess such a flaw. Could he? Here was the real point of no return.

The High Magister confirmed McKie's judgement by turning his back on the Tribunal, the ages old Gowachin gesture of submission. What a shock Aritch's performance must have been for those who'd seen him as a possible Mweg. A poor choice except at the end and that'd been as much recognition of total failure as anything else.

McKie waited, knowing what had to happen now. How was Ceylang's moment of truth.

Brocy addressed her.

"You have suggested that you would prosecute these eight prisoners. The matter is in the hands of Defense Legum."

Brocy shifted his gaze.

"How say you, Legum McKie?"

The moment to test Brocy had come. McKie countered with a question.

"Can this Courtroom suggest another disposition for these eight

prisoners?"

Ceylang held her breath.

Brocy was pleased. He had triumphed in the end over Jedrik. Brocy was certain in his mind that Jedrik did not occupy this Legum body on the arena floor. Now, he could show the puppet masters what a Dosadi-born could do. And McKie saw that Brocy intended to move fast, much faster than anyone had expected.

Anyone except Jedrik and she was only a silent (memory?) in McKie's awareness.

Having given the appearance of deliberation, Brocy spoke.

"I can order these eight bound over to ConSentient jurisdiction if McKie agrees."

The eight stirred, subdued.

"I agree," McKie said. He glanced at Ceylang. She made no protest, seeing the futility. Her only hope now lay in the possible deterrent presence of the forest Wretches.

"Then I so order it," Brocy said. He spared a triumphant glance for Parado. "Let a ConSentient jurisdiction decide if these eight are guilty of murder and other conspiracy."

He was well within the bounds of the Covenant between the ConSentientcy and Gowachin but the Gowachin members of his audience didn't like it. Their Law was best! Angry whistlings could be heard all around the arena.

Brocy rose half out of his seat,

pointed at the instruments of pain arrayed beneath him. Gowachin in the audience fell silent. They, better than anyone, knew that no person here, not even a member of the audience, was outside the Tribunal's power. And many understood clearly now why those bloody tools had been displayed here. Thoughtful people had anticipated the problem of keeping order in this arena.

Responding to the silent acceptance of his authority, Broey sank back into his seat.

Parado was staring at Broey as though having just discovered the presence of a monster in this Gowachin form. Many people would be reassessing Broey now.

Artech held his attitude of complete submission.

Ceylang's thoughts almost hummed in the air around her. Every way she turned, she saw only a tangle of unmanageable tendrils and a blocked passage.

McKie saw that it was time to bring matters to a head. He crossed to the foot of the judicial bench, lifted a short spear from the instruments there. He brandished the barbed, razor-edged weapon.

"Who sits on this Tribunal?"

Once, Artech had issued such a challenge. McKie, repeating it, pointed with the spear, answered his own question.

"A Gowachin of my choice, one supposedly wronged by the Dosadi project. Were you wronged, Broey?"

"No."

McKie faced Parado.

"And here we have a Human from Lirat. Is that not the case, Parado?"

"I am from Lirat, yes."

McKie nodded.

"I am prepared to bring a parade of witnesses into this arena to testify as to your occupation on Lirat. Would you care to state that occupation?"

"How dare you question this Tribunal?"

Parado glared down at McKie, face flushed.

"Answer his question."

It was Broey.

Parado looked at Bildeon who still sat with face concealed in his arms, face down on the bench. Something about the PanSpechi repelled Parado but he knew he had to have Bildeon's vote to overrule Broey. Parado nudged the PanSpechi. Inert flesh rolled away from Parado's hand.

McKie understood.

Facing doom, Bildeon had retreated into the crèche. Somewhere, an unprepared PanSpechi body was being rushed into acceptance of that crushed identity. The emergence of a new Bildeon would require considerable time. They did not have that time. When the crèche finally brought forth a functioning person it could not be heir to Bildeon's old powers in Bušab.

Parado was alone, exposed. He stared at the spear in McKie's hand.

McKie favored the arena with a sweeping glance before speaking once more to Parado.

"I quote that renowned expert on Gowachin Law, High Magister Arich: 'Consentient Law always makes aristocrats of its practitioners. Gowachin Law stands beneath that pretension. Gowachin Law asks: Who knows the people? Only such a one is fit to judge in the Courtroom.' That is Gowachin Law according to High Magister Arich. That is the law in this place."

Again, McKie gave Parado a chance to speak, received only silence.

"Perhaps you are truly fit to judge here," McKie suggested. "Are you an artisan? A philosopher? Perhaps you're a humorist? An artist? Ahhh, maybe you are the lowliest of workmen, he who tends an automatic machine?"

Parado remained silent, gaze locked on that spear.

"None of these?" McKie asked. "Then I shall supply the answer. You are a professional legalist, one who gives legal advice, even to advice on Gowachin Law. You, a Human, not even a Legum, dare to speak of Gowachin Law?"

Without any muscular warning signal, McKie leaped forward, hurled the spear at Parado, saw it strike deeply into the man's chest.

One for Jedrik!

With a bubbling gasp, Parado sagged out of sight behind the bench.

Broey, seeing the flash of anger in McKie's effort, touched the blue box in front of him.

Have no fear, Broey. Not yet, I still need you.

But now, more than Broey knew it was really McKie in this flesh. Not Jedrik. Those members of the shadow force watching this scene and able to plot would make the expected deduction. Only McKie would've known Parado's background. They'd trace out that mistake in short order. So this was McKie in the arena. But he'd left Dosadi. There could be only one conclusion in the plotters' minds.

McKie had Caliban help!

They had Caliban to fear.

And McKie thought: You have only McKie to fear.

He grew aware that grunts of Gowachin approval were sounding all around the arena. They accepted him as a Legum, thus they accepted his argument. Such a judge deserved killing.

Arich set the precedent, McKie improved on it.

Both had found an approved way to kill a flawed judge, but McKie's act had etched a Gowachin precedent into the Consentient legal framework. The compromise which had brought Gowachin and Consentient Law into the Covenant of shared responsibility for the case in this arena would be seen by the Gowachin as a first long step toward making their Law supreme over all other law.

Artich had half turned, looking toward the bench, a glittering appraisal in his eyes which said the Gowachin had salvaged something here after all.

McKie strode back to confront Ceylang. He faced her as the forms required while he called for judgement.

"Bildoon?"

Silence.

"Parado?"

Silence.

"Boney?"

"Judgement for Defense."

The Doradi accent rang across the arena.

The Gowachin Federation, only member of the ConSentient which dared permit a victim to judge those accused of victimizing him, had received a wound to its pride. But they'd also received something they would consider of unestimable value—a foothold for their Law in the ConSentient plus a memorable court performance which was about to end in the drama they loved best.

McKie stepped to within striking distance of Ceylang, extended his right hand straight out to the side, palm up.

"The knife."

Attendants scurried. There came the sound of the blue box being opened. Presently, the knife handle was slipped firmly into McKie's palm. He closed his fingers around it, thinking as he did so of all those countless others who had faced this moment in a Gowachin Courtarena.

"Ceylang?"

"I submit to the ruling of this court."

McKie saw the ferret Wreaves rise from their seats as one person. They stood ready to leap down into the arena and avenge Ceylang no matter the consequences. They could do nothing else but carry out the role which the Gowachin had designed for them. Few in the arena had misunderstood their presence here. No matter the measurement of the wound, the Gowachin did not suffer such things gladly.

An odd look of camaraderie passed between Ceylang and McKie then. Here they stood, the only two non-Gowachin in the ConSentient universe who had passed through that peculiar alchemy which transformed a person into a Legum. One of them was supposed to die immediately and the other would not long survive that death. Yet, they understood each other the way siblings understand each other. Each had shed a particular skin to become something else.

Slowly, deliberately, McKie extended the tip of his blade toward Ceylang's left jaw, noting the myriad pocks of her trade exchanges there. She trembled but remained firm. Deftly, with the swiftest of flicking motions, McKie added another pock to those on her left jaw.

The ferret Wreaves were the first to understand. They sank back into their seats.

Ceylang gasped, touched a tendril to the wound. Many times she had been set free by such a wound, moving on to new alliances which did not completely sunder the old.

For a moment, McKie thought she might not accept, but the increasing sounds of approval all around the arena overcame her doubts. The noise of that approval climbed to a near deafening crescendo before subsiding. Even the Gowachin joined this. How dearly they loved such legal nuances!

Pitching his voice for Ceylang alone, McKie spoke.

"You should apply for a position in BuSab. The new director would look with favor upon your application."

"You?"

"Make a Wreave bet on it."

She favored him with the grimace which passed for a smile among Wreaves, spoke the traditional words of trial farewell.

"We were well and truly wed."

So she, too, had seen the truth in their unique closeness.

McKie betrayed the extent of his esoteric knowledge by producing the correct response.

"By my mark I know you."

She showed no surprise. A good brain there, not up to Dosadi standards, but good.

Well and truly wed.

Keeping a firm lock on his emotions (the Dosadi in him helped), McKie crossed to confront Arich.

"Client Arich, you are inno-

McKie displayed the flock of Wreave blood on the knife tip.

"The forms have been obeyed and you are completely exonerated. I rejoice with all of those who love justice."

At this point in the old days, the jubilant audience would've fallen on the hapless client, would've fought for bloody scraps with which to parade through the city. No doubt Arich would've preferred that. He was a traditionalist. He confirmed that now.

"I am glad to quit these times, McKie."

McKie mused aloud.

"Who will be The Mrrug now that you're . . . disqualified? Whoever it is, I doubt he'll be as good as the one he replaces. It will profit that next Mrrug to reflect upon the fragile and fugitive value to be gained from the manipulation of others."

Glowering, Arich turned and shambling toward the doorway out of the arena.

Some of the Gowachin from the audience already were leaving, no doubt hoping to greet Arich outside. McKie had no desire to witness that remnant of an ancient ritual. He had other concerns.

Well and truly wed.

Something burned in his eyes. And still he felt that soft and sleeping presence in his awareness.

Arich?

No response.

He glanced at Broey who, true to

his duty as a judge, would be the last to leave the arena. Broey sat blandly contemplating this place where he'd displayed the first designs of his campaign for supremacy in the Consentiency. He would accept nothing less short of his own death. Those shadowy puppet masters would be the first to feel his rule.

That fitted the plan McKie and Jedrik had forged between them. In a way, it was still the plan of those who'd bred and conditioned Jedrik for the tasks she'd performed so exquisitely.

It was McKie's thought that those nameless, faceless Dosadi who stood in ghostly ranks behind Jedrik had made a brave choice. Faced with the evidence of body-exchange all around, they'd judged that to be a deadly choice—the conservation of extinction. Instead, they'd trusted sperm and ova, always seeking the new and better, the changed, the adapted. And they'd launched their simultaneous campaign to eliminate the Pcharkys of their world, reserving only that one for their final gambit.

It was well that this explosive secret had been kept here. McKie felt grateful to Ceylang. She'd known, but even when it might've helped her, she'd remained silent. BuSab would now have time to forge ways of dealing with this problem. Ceylang would be valuable there. And perhaps more would be learned about PanSpechtu, Calchans, and

Taprinosis. If only Jedrik . . .

He felt a fumbling in his memories.

"If only Jedrik what?"

She spoke laughingly in his mind as she'd always spoken there.

McKie suppressed a fit of trembling, almost fell.

"Careful with our body," she said. "It's the only one we have now."

"Whose body?"

She caressed his mind.

"Ours, love."

Was it hallucination? He ached with longing to hold her in his arms, to feel her arms around him, her body pressed to him.

"That's lost to us forever, love, but see what we have in exchange."

When he didn't respond, she said:

"One can always be watching while the other acts . . . or sleeps."

"But where are you?"

"Where I've always been when we exchanged. See?"

He felt her parallel to him as the shared flesh and, as he voluntarily drew back, he came to rest in contact with their mutual memories, still looking from his own eyes but aware that someone else peered out there, too, that someone else turned this body to face Broey.

Fearful that he might be trapped here, McKie almost panicked, but Jedrik gave him back the control of their flesh.

"Do you doubt me, love?"



He felt shame. There was nothing she could hide from him. He knew how she felt, what she'd been willing to sacrifice for him.

"You'd have made their perfect Meng."

"Don't even suggest it."

She went pouring through his arena memories then and her joy delighted him.

"Oh, marvelous, McKie. Beautiful! I couldn't have done it better. And Broey still doesn't suspect."

Attendants were taking the eight prisoners out of the arena now, all of them still shackled. The audience benches were almost empty.

A sense of joy began filtering through McKie.

I lost something but I gained something.

"You didn't lose as much as Artich."

"And I gained more."

McKie permitted himself to stare up at Broey then, studying the Gowachin judge with Dosadi eyes and two sets of awareness. Artich and the eight accused of murder were things of the past. They and many others like them would be dead or powerless before another ten-day. Broey already had shown the speed with which he intended to act. Supported by his hoop of Jedrik-chosen aides, Broey would occupy the seats of power, consolidating lines of control in that



shadow government, eliminating every potential source of opposition he could touch. He believed Jedrik dead and, while McKie was clever, McKie and BuSab were not a primary concern. One struck at the real seats of power. Being Dosadi. Broey could not act otherwise. And he'd been almost the best his planet had ever produced. Almost.

Jedrik within chuckled.

Yes, with juggernaut certainty, Broey would create a single target for BuSab. And Jedrik had refined the simulation pattern by which Broey could be anticipated. Broey would find McKie waiting for him at the proper moment.

Behind McKie would be a new

BuSab, an agency directed by a person whose memories and abilities were amplified by the one person superior to Broey that Dosadi had ever produced.

Standing there in the now silent arena, McKie wondered.

When will Broey realize he does our work for us?

"When we show him that he failed to kill me!"

In the purest obedience to Gowachin forms, without any sign of the paired thoughts swirling through his mind, McKie bowed toward the surviving priest, turned and left. And all the time, Jedrik-within was planning . . . plotting . . . planning . . .

★



AT LAST, a few moments of free time to devote to my novel. Where was I?

The noble alien bravely faced the shambling, evilly grinning Earthman. The alien cried, "Stop where you stop, John Gorman! You shall not have our planet's treasures!"

"The cowardly human——"

"Alter."

Don't interrupt my flow, Geis. I'm really in the groove now. This stuff will win a Hugo.

The cowardly human cringed at the sight of the Hamilton-Grzeyske W-2 blaster. "I come in peace, alien, or, Only——"

"Alter. I hate to interrupt, but——"

"Only I must find the nearest bathroom. . . ." Bathroom?

Where did that come from? Geis! Look what you made me do! You've blown my concentration all to hell! How can I work with you insidiously inserting words like that into my precious prose?

"I laugh at your juvenile fiction, Alter. But let us not get into another argument about your talents. Do you see that blinking light on your phone? Do you realize that Jim Bacon has been trying to get in touch with you for a week?"

I thought it was Roger Elwood asking for a job as assistant editor of Alter Ego Publications.

"You were wrong. Jim finally had to call me and ask whether you were still alive or not. He needs another column for *Galaxy*, and it is your column now, you know. It's your responsibility."

I know, I know . . . Alright, I'll get right on it. I know what I'll do! I'll complain about the poor quality of most of I read, and then I'll point the opening chapter of my novel to show how really fine stuff can be! Yow! The readers will love it! They'll . . .

Geis, who is that person who is hiding behind your back? Who have you brought down here to inflict upon me?

"Who? This person? Oh, this is an admirer of yours, Aler. A great enthusiast. He prevailed upon me to let him come down here to meet you. It was inevitable, you know, that sooner or later even you would have a few fans."

A fan of mine? Well? Stand aside, Geis. Let's get this over with.

(A few silent seconds pass.)

Well? Why don't you run screaming? Why don't you turn pale and cringe?

"Mr. Aler Ego, sir, I love your scratchy voice, and the way you choose your words with such care and cunning. You're the first thing I listen to every time your column appears in *Galaxy*. I got a great kick out of your fight with Geis."

Yeah, Geis gets a kick out of them, too. Don't you, Geis? GEIS? Where did he slip away to?

"He said he could only stay a minute. But he'll be back to guide me back to the surface in a short while."

And in the meantime I'm stuck

with you, huh? Well, what do you want?

"Just to listen to you, and maybe interview you for my group."

Ah! An interview! Yes, and it's about time I was interviewed! Geis'll be insane with jealousy. Sure, man, go ahead and ask questions. I have to admire your guts, most people, even hardcore sf fans, turn queasy at the sight of my alien visage. And I look even worse today because I haven't shaved my tendrils or sandpapered my pseudopods for a week. That, combined with my itchy green scaly skin . . .

"Oh, that doesn't bother me a bit. I can't see you."

Bad eyesight? Let me dial up the lamp a bit more.

"That won't help. I'm un-sighted."

Uh? Aww . . . Come on! If you're blind you couldn't read *Galaxy*. You couldn't read my column!

"I don't read it with my eyes. I 'read' it from listening to a cassette. *Galaxy* is provided to unsighted people on cassettes by the Library of Congress."

It is? Son of a glitch! I didn't know that.

"Oh, yes. *Galaxy* is the only sf magazine that has permitted itself to be distributed to us this way. You'd be surprised at how many thousands of fans you have among the unsighted, Mr. Aler."

Thousands?

"Ummmm. There's a great hunger among the unsighted for science fiction and fantasy. The problem is there's so little of it on tape and records. And we can afford so few of the commercially produced items."

I know what you mean. I try bugging Geis to buy a few fantasy records and he starts shouting about money. The only things of that nature we have in the archives are what show up to be reviewed.

"We were wondering if there are any fans or fan groups out there in the sighted readership of *Galaxy* who perhaps carry on discussions of science fiction and fantasy on cassettes—"

Yeah, yeah, seems to me Geis mentioned there was a cassette fandom in existence a few years ago . . . Might still be active. He couldn't remember any names or addresses, though, and his records are a shambles.

"We'd love to be included. And if it were at all possible, maybe some fan groups could organize recording sessions and put the best sf and fantasy on cassettes."

That's a good idea. There have to be lots of fans with good diction, good voices, a flair for dramatic reading, who would love to do that. Club projects. Coordination with other clubs to avoid duplication of recorded stories.

"Wouldn't that infringe on author's rights? We wouldn't want to—"

I doubt there are any writers, especially sf and fantasy writers, who would object to having their stories taped for non-profit distribution to the unsighted. I'm sure they'd be flattered and proud to have their stories chosen. But you're right to raise the point. There would have to be a central clearing house, a coordinating center, to organize things and get people in contact with each other. I would suggest Geis, but he is so busy with *Science Fiction Review* he'd have my head on a platter if I tried to saddle him with this.

"Maybe—"

I think this is a job for Jim Baer! Jim?

* * *

Ahem. Yes. After. It happens that this very subject came up two issues back in "Directions." Oddly enough my profusely hammy brain ran in channels not dissimilar to those of your weirdly often . . . er, it is a brain, is it not? (I've never been quite clear on that point.) In any event, I think the simplest course would be for me to repeat my remarks in the letter column verbatim:

*I have recently learned that over 10% of *Galaxy's* "readers" are sightless, or nearly so. I also learned—long ago—that among *Galaxy's* sighted readers are some of the most warmly enthusiastic and giving people in the world. It strikes*

me that this is a setup. I propose that Galaxy act as a clearing-house between people who would like to provide science fiction-oriented services for the sightless and those who would like to receive such services.

The services might include covering at conventions and to fan club meetings; reading, either "live" or via cassette, helping to organize (this would probably only be feasible in large cities) fan clubs for the visually impaired, together with a sighted "auxiliary" to provide reading, escort and whatever. Authors could provide a very special service by arranging with their publishers for permission to do multiple cassette recordings of their works for non-profit distribution. Finally, someone must assume the "clearing-house" role. Galaxy will only be able to carry the burden for a limited time. Perhaps some fan club would like to offer its services for this?

Those interested in being put in touch with volunteers should wait at least a month before making inquiries. Those wishing to volunteer should write immediately to:

Galaxy Magazine

Volunteers

PO Box 418

Planetarium Station

New York, NY 10024

Okay. Now, fan of mine, you

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mentioned wanting to do an interview with me? Why not now? Go right ahead and ask question . . . especially now, with Geis out of the way.

"Thank you, Alter. Umm . . . There is some curiosity about how you came into existence. Where and how were you born?"

I was born on the fifth planet, Geerf, of the Zirk system, about thirty light-years from here, as the flurb files. I was born like any other creature of my race, from larvac deposited into the abdomen of giant Himmgs. I had to eat my way out, growing strong and large as I ate, of course, and was "born" on a dark and stormy night. Ah, yes, I remember it well . . .

"Then, how did you come to Earth and . . . inhabit . . . Richard Geis's mind?"

I volunteered for a space mission—exploration . . . Oh, larpl! I'll tell you the truth. I was thrown into a warper and exiled to this Kaku-forsaken planet. They just dialed at random and threw the switch. I materialized in the middle of an assassination of one of your leaders and had to disincorporate instantly. In that vulnerable state it was all I could do to keep my atoms together. I was sucked thousands of miles into a mental vacuum, and when I finally pulled my remaining essence together I discovered I was in Geis's brain. I've been here ever since, growing stronger and stronger.

"Why were you exiled?"

That I will not tell you. The crimes of Geerf do not relate to human crimes.

"What are your plans?"

Short-range, I want to throw Geis out of this body, make some radical changes in the organs, and become a male porno star. Long-range, I want to take over the world. Since my normal lifespan is 700,000 of your years, that will become boring after a few thousand years. I'll probably try to bribe my way back into Geerf society.

"Can you make Geis's body last so long?"

Oh, no. That's part of the drag of living on this ridiculous planet. I'll have to body-hop every few decades.

"Ahh, Mr. Alter, there is a problem . . . How is it Mr. Geis can be absent, while I'm apparently talking to you?"

I have the power to cloud men's minds. I project an illusion. At this moment I am actually in Geis's feeble brain, and you are hallucinating under my direction.

"That makes me feel . . . funny. Scared."

You had to ask.

"Are the archives real?"

After a fashion. We are in Geis's basement, converted to offices and lined with shelves. This place actually is a mess!

"You've destroyed a good many illusions, Alter. Are you telling me the truth?"

No, of course not. Well, yes, partly.

"Which part?"

I won't tell you that. Are you through interviewing me? Any more questions?

"Yes, there are a few more questions. Are you going to ever publish a magazine all by yourself, without Mr. Geis?"

Yes, if I can ever get Geis's affairs and work habits organized for greater efficiency. I plan to publish my own science fiction and fantasy. For adults only, of course. But that's at least a year away.

"What will you call it?"

I think *Irresponsible Science Fiction* is a good title. Counter-counter-counter culture sf for hopeless iconoclasts.

"Could you give us an example? A story idea?"

I like the story of the huge Barbarian who saves the beautiful maiden from the wizard, and takes payment for the rescue in money and sex. He doesn't believe in risking his neck for nothing.

"That is revolutionary. Any other ideas for stories?"

Yes, the story whose premise is that Earth has never been visited by aliens or saucers, and that the phenomenon we experience now and have in the past, is only a distraction created by the true rulers of Earth—cockroaches.

"Anything else?"

Well, I've toyed with the idea of a story about a man who proves to

himself that they can never, ever, get something for nothing. For this sin he is tortured to death by a horde of enraged politicians.

"Do you think your magazine would be very popular?"

No, it will have a very limited appeal.

"How long do you expect to write this column in *Gals*?"

As long as I'm wanted.

"Thank you, Mr. Alter."

You're welcome. Ah, I see Geis returning to take you back up to the surface.

"Alter, I just took a call from President Carter. He wants you to come to Washington to accept an appointment. He wants you to be available as an official ambassador to any and all aliens who happen to visit or be discovered, during his reign . . . or, term of office."

Tell him no, Geis. I happen to know the Denethians will be visiting Earth in six years, and they look like four-foot peanuts with legs. It'll be a very unfortunate scene. Now, will you take this gentleman back up to the surface and leave me be to write my prose?

"It's your column."

I'm glad you finally accept that. Now, where was I?

"The Earthman was misunderstood. He only wanted to go to the bathroom."

Yes. . . . yes. . . . Hum. Now, if he wears a spacesuit with a relief tube . . . Bathroom? Damn you, Geis!

★

Arsen Darnay

the

Pheromonal Fountain



"And gentle odours
led my steps astray,
Mixed with the sound
of water's murmuring. . ."

—P. B. Shelley

WOULD YOU BELIEVE? I have been activated. STU's pulse deep inside my core once more. Out of storage chamber I step into the light. I'm off on another assignment.

My name is Friday. Sometimes I know precisely why they call me that; sometimes it's more obscure; it all depends on how I'm programmed for the work ahead. This assignment should be some kind of guru. I feel little in the way of data in my coils. But talent makes up for lack of information.

I make this record as I speed away. A mini-device implanted in my sphenoidal sinus receives my thought projections. I have little use for sinuses. I am a surrogate, of course, and what with my other superior powers, who needs a nose?

This world so full of sunshine, so a-theob with humming vibration, is that of the 21st century. The background tells me that we're civilized—terribly civilized. Technology roars up like a tidal wave. It's still up there, that wave, holding, holding—but any minute now it threatens to engulf the human world.

Crime's rampant, says my program. Not enough agents to stop the nefarities of our Ph-deed dis-socials.

Religion, mores, ideals—dead and dust. Competition vitiates. Government paralyzes in its paralysis. Developed nations chew the edges of our Overdeveloped shores like locusts. Pretty soon—no more America. Not enough people here, too many people there. "Mass balance" is the political slogan, meaning that people should be making babies in this land, not riveting with surrogates. But that program lacks political appeal: people love the surrogates; they live inside bordello domes.

I ride the tube train out of sunshine into darkness, away from Prairie Phoenix Institute, old PSI, my resting place between assignments. It's good to be alive, good to get away.

The tube train settles in its downward rush through plasma-carved tunnels in which it glides on sheets of air. The lights that dimmed during our rocky start come back to full candle power. People relax, unstrap, and ring for beverages. I look around. And there, two seats away and to my right, I glimpse Banfield from the Institute.

Seeing Banfield is an omen—and not a good one, I might add. Less than an hour into my assignment, and that old PSI starts stirring up my irrationality circuits. Why is Banfield on this train? Is he on the same assignment I am on? Doesn't

PPI trust Friday to do the job alone? Banfield causes a burning sensation in the membranes of my nutrient bladder.

He is a repulsive surrogate of the aggressive, bold variety called "Tanker," the first successful male product line United Fems and Dolls came out with after they decided to crash into Masculinity and try for a slice of the middle-aged divorcee market.

He has a long face, thick sideburns, and lips that the ads call sensual but I'd call lewd. The simulated leather suit he wears suggests the joys of being whipped with whips. His purple shirt is open at the neck, half unbuttoned. You just know that Banfield loves those simulated curlicues of protein on his chest.

He pretends he doesn't see me. We're not exactly soul mates, he and I, but I'm a senior agent and won't be ignored—not by a recent acquisition.

"Banfield," I call. "Which way you headed?"

"Oh, Friday. Hi." He simulates surprise. "Out," he says and waves a hairy hand.

It's a rule at PPI not to talk about assignments, a rule we honor in the breach. Not Banfield. He clings to that trajectory. He must be up to some No-Good. His background program comes from UFD—and they're known for their whopping exaggerations. But I won't press the point. I nod to him and wave a

hand by way of saying *See you around*, and he takes his cue and dives into a magazine. I guess I'll follow suit.

I reach into the front-seat pocket and fish out a copy of *Chronos*. I know from past activations that *Chronos* has been rampaging against the rise of surrogates, a story I like to follow, and this time too I am rewarded. Once more *Chronos* is on the attack, tilting against the sexual decadence. The cover person is a gross-fat woman by name of Ruby Smith—not a surrogate, she. She owns and runs the Vegas Pornorama, the nation's largest bordello dome, a nine-hundred acre island of delights amidst the desert sands. Hm. This is new. At Pornorama, it says here, no human being has ever refused the come-on warble of a Mattress or a Back. I find that odd.

Something fascinates me about the story, and knowing that I've got PSI, I click on a concentration lock and dig into it deeply. And the next thing I know—surfacing from the muckraking account, Banfield has disappeared.

I have no nasal circuits but nevertheless—methinks I smell a stranded whale. PPI programs its agents superlatively. Everything has its significance.

I lean back, close my eyes, and start to think about my assignment, which is with the FBI, details unknown. My storage is rather skimpy—itsself revealing. But I

know this: the "highest levels" in that agency called Dr. Trabote, our president. They asked that he send them the very best agent money could lease. Me, of course. I am to help a certain Bud MacGuire, agent-in-charge of something called "Project Evacuation." MacGuire has been working on the case for several months without success. I'm thinking: Won't he be just itching green to see me?

The train rides on.

Noonish at last and I arrive in Washington, D. C. The metro whisks me to a spot outside the FBI building. I look at it from across the street. The structure survives from the "troubled century" and looks like a triple-docker brick on legs. My aesthetic circuits turn off in horrified registers.

Two higher-ups receive me. They wear blue suits and look alike. They treat me like—well, like higher-ups treat surrogates: barely. I'm not asked to sit. One man reaches for a telephone and dials MacGuire. Invites him to have lunch downstairs, in the basement intravenous. "Want you to meet someone," he tells MacGuire. "Ten minutes?"

Downstairs MacGuire takes one look at me and dislikes what he sees. His eyes and face (a little on the ruddy side) say he is expecting trouble—and trouble comes.

After the waitress has nudged us

in, the older of the higher-ups (he has folds in his stumpy neck), starts none too gently, saying:

"Project Evacuation isn't doing much, MacGuire. We figured you needed a little help. Friday here is your new assistant."

And that's the high point of the introduction—all downhill from there.

Later, after the higher-ups have left, MacGuire points an index finger at me in the hall, and though the finger trembles, I notice that MacGuire chews his nails.

"Listen, you," he says, and a bloody eye stares menacingly, "no clackering surrogate's gonna be my assistant, no matter what they say," and he hooks an angry thumb toward the ceiling.

Six hours into the assignment, and I'm really straining with the client's man; we're puff, puff, puffing down a pair of rails that aren't parallel.

"Call me your contractor, then," I say.

"Don't you tell me what to call you," he says.

He stalks away, leaving me stand, but I follow him thinking that I'm as good as he is; more so: my eyes are baby blue, glistening Auburn my hair. I'm a souped-up Model "Boss" modified in speech and manner to pass for a man any day. No 'clackering' whatever, brothers. Nor am I prejudiced, nor will I die. Sweet Manson! I'm eighty-five percent organic, but try

telling MacGuire that! At least when I am programmed, I know it.

He disregards me when I enter the office in his wake and seat myself on his inflate-chair. The chair turns out to be equipped with little faring horns: a practical joker, this MacGuire. He roars with laughter, his face turns purple, he slaps his knee, he pounds the desk. I recognize the type and know that he will be more friendly now that he has rattled me one, and so it is.

"All right," he says, wiping tears from his eyes, still chuckling. "All right" Friday, is that it? Nice name for a surrogate. Tell you what, boy. I'll put you next door and you can brief yourself—if you know how to tune a self-surround."

I tell him I might just manage.

Two hours later I'm still at it, fourth time around, and note with surprise that my motivational programming on this assignment allows me to experience despair. I'm bottoming in the stuff. If I had tear glands, I'd shed some brackish.

MacGuire comes in, leans against the door post, arms folded across his chest. He moves up and down, scratching his back on the door post.

"Your best bet, Friday," he says, chin-pointing to a flash chart of U.S. cities on the screen, "is to be there next time they hit."

"How can I? You can't predict

where they'll hit, can you?" I ask.

"Of course not. If I could I'd move right in and stop it just like that." He snaps a finger.

"If you can't, what makes you think I can?" I ask. And I wonder, at the same time, why PPI has programmed me so gloomy.

"You're my high-powered assistant, ain'tcha? You'll figure out a way."

MacGuire makes a noise that didn't come from his inflate-chair, grins, and leaves me to my miseries.

I walk the streets of Washington in mid-afternoon. Background programs tell me it's an ordinary day.

Over near Capitol Hill a workfare crowd eight thousand strong, in brilliant rags and shiny, purple hats, has gathered to witness the arrival of a real-life Godzilla grown from a rock lizard by DNA-gene-insertion in Osaka and sent to Congress as a gesture of international solidarity by the Diet in Japan. Godzilla is drugged, says a man at a street corner gawking boredly. Drugged or not, it's a fearsome beast, tall as the Washington monument. Its playpen, built adjacent to the zoo, cost a billion and wiped out two affluent suburbs. I understand Godzilla had to swim the Pacific after three connected supertankers meant to carry it across the ocean sank during embarkation. I feel a little for the

beast—it can't help being a monster and it's far from home.

Over near Commerce a pesky smog pocket has brought six oxygen vans racing, and men in white suits and bubble helmets are handing masks to doubled-over somebodies. I don't need air but take a thing anyway. No need to advertise my surrogation.

Near Justice I pass sixteen shaven-headed brethren of the Death - to DDT, thalidomide-fluorocarbon - mercury - phosphates - asbestos - and - various - plastics Association. It's an old-fashioned, traditional group whose name has not kept pace with issues. They're chanting "Death to Carakfoam" while herding in their midst a group of mutagens (for demonstration, I suppose)—slashing people whose arms sash uncontrollably, whose spindly necks bob, whose walk resembles that of people stepping over huge, invisible crates with one leg. The brethren keep the mutagens in line with NP (for no pain) cattle prods, the latest import from Brazil.

Enough idle sightseeing. I need a quiet hotel. I need to think.

Then at Lafayette Square I suddenly stop. I see the fountain: a stone groove-chick representing America (I guess) lifts a bleeding, kneeling little man in stone pyjamas and a stone bamboo hat—memento to some long forgotten war.

It's not the war that interests me but the fountain. Every time the

phantom forces of Evacuation have struck thus far, a fountain has been involved. Fountains, I tell myself. That's it. You've got to watch the fountains in the cities they haven't hit.

And now it is several days later. I am in Kansas City, just off the Plaza, seated on a bench. I watch a fountain.

I've been sitting here for three days and three nights, unceasing in my vigilance. If surrogates are capable of madness, I must be positively nutmeg.

What makes me think they'll strike in Kansas City? Nothing. But I've got PSI. And the pattern of psi strikes has been random. I asked my own randy-disc to pick a city. It picked Kansas City, and consequently here I am. And I am here specifically because this is the only fountain near a rich and fashionable shopping center.

Evacuation works like this: suddenly and without warning, all the people in an area will start to head with unerring instinct toward some riveting fountain.

They stand and stare and mull in a daze for several hours on end. And even after they shake off the puzzling fascination, it usually takes several hours to unravel the hindenburg mess.

Meanwhile, of course, unobserved predators loot the nearby,

empty stores and banks. They make off with cash and jewelry by mingling with the crowd. Or that's the theory.

Post-dictum analysis has revealed nothing so far—though everything has been analyzed: fountains, air, water, and selected possessors' metabolisms. Traps have been set, emergency procedures formulated. But the authorities have failed to cope. Cops flown or driven into emptied areas—with or without gas masks—are possessed by the same fountain urge and quickly leave the solution to join the problem.

It's dark. I sit. The fifth psychic has just approached me and been told to blow a balloon. I swim in a Pacific of programmed depression, a sad Godzilla of a secret agent. Did Dr. Trobate mean for me to fail? This isn't like me in the least. Then—action, at last!

* * *

I spot a little man. He comes in a splattered all-over suit carrying two buckets. He wears—yes, mam! He wears hip boots.

A cold cigar is cornered in his mouth and a floppy pile of an artist's beret sits on his head. He climbs into the fountain, avoiding the spurts of bottom-lighted water (green, orange, red). And the next thing you know, he is seated on a dolphin's back and is painting the head of an up-starting home with a kind of white discoloration.

Interesting. My chronostat says 22:30. I rise and approach.

"Hey," I cry. "You there. Sir."

He looks at me. "Yeah?"

"What're you doing?"

"What's it look like?"

"I don't know," I say—and I really don't.

"Look, man, leave me be. I've got work to do."

"But why are you painting the house?"

"Because I've got a contract," he says. "Okay? I've got it right here." He slaps his chest. "Everything all square and squared. Now pulverize."

I persist. "Excuse me, but could you tell me the reason? Why would the city want to paint a perfectly fine piece of sculpture? And why in that goosey white?"

The little man is irritated. He puts down his brush, clamps down on his cigar, unstraddles the dolphin, and comes toward me, head low. His face turns green, orange, and finally red as he pauses over zones of underlighting.

"What are you?" he asks. "A surrogate or something?"

I say, "Don't be silly," and don't even blush.

"Look," he says, "this city has a bubble, don't it?"

I look up reflexively and nod. Yes, sir, Kansas City has a weather bubble. "So?"

"So there ain't no pigeons, is there?"

"Pigeons?"

"Yeah, what else? Pigeons. You know. Flatter, flatter?" He lifts his arms and waves his hands like wings. He considers me an idiot.

My programming has a gap in it somewhere. I still don't get it and I say so.

He shakes his head. "Mister, you should plug into the media. Yes, sir. You sure need some culture. What's a fountain without no pigeon faecal matter on it? Well?"

"Ah," I say. "I got it." (But I still don't.) "So you paint faecal matter on the sculpture. I see."

"Well, finally!"

"But why do you 'do it at night'?"

He has had it with me, but he answers. "What would the public say if they saw me do it? Mister, you ain't got no sense. This stuff's supposed to be natural."

It's a long night. My fourth. The pigeon faecal matter painter has done his dabbles and has left. I have reviewed my deep-stored data and found that indeed weather bubbles vibrate on a frequency that pigeons find alarming. As for the aesthetic charm of those whitish smears on horse and maid and dolphin—that has roots deeper than my circuitry.

Day dawns. The last and most persistent gayzie of the night, sulk-ing on a nearby bench, has turned on a portable radio. Its loud blar-

ings tell me what I already know. Today is Helium Day in Kansas City.

Helium Maid of 2013 will be lofted up toward the pinnacle of the weather bubble on a throne of balloons which will be timed to burst on high. Helium Maid will parachute down and land in Voller Park.

It's still early but a crowd begins to gather. Helium Maid will start her journey from the Plaza. If anyone plans to rivet with this fountain, it's probably too late. I break my vigil. I need movement in my limbs—and data, more data.

MacQuinn can't make sense of me and I can't make sense of him. Time difference between our two loci is one hour. He insists on eating his breakfast while talking on the telephone, and what with Ma Bell's much improved resonators, I might as well be inside his stomach.

"Pigeons?" he asks, and his tongue fishes for, say, a bit of tooth-jammed raisin. "What is the buzz do you wanna know that for?" He swallows, and it sounds as if a whale had just surfaced from an ocean of lard in slow motion. "What kind of stuff are you into, anyway?" The gurgly roar is that of coffee crashing between his gums. "Friday, we're after criminals, not people who paint excrement on statues, get the idea?"

"Check it anyway," I insist. "And try to hurry. They're leaving Helium Maid in less than an hour."

"Losing the what—oh, never mind. Hang in there, boy."

I wait and wait while MacGuire's other and lesser assistants are presumably blazing down the laser tubes in search of obscure facts for that clackering tick-tock of a surrogate fountain-sitting in the nation's helium capital.

Then MacGuire is back. He sounds tight. He sounds excited. "Listen, Friday. I've got a chopper warming up on the roof and an Air Force jet standing by at Carter Field. Don't do anything till I get here."

"Hey, what about it?"

"Just like I suspected," he says. "The day before each strike, the fountains were touched up."

"Just like who suspected?" I ask, but he's already gone.

People have gathered, many of them dressed for the parade that is to follow Helium Maid's leaving and descent by groon (for money) parachute.

I thread my way through a group of high school teenies dressed like vessels, pumps, compressors—to impersonate a refinery, I guess. They talk a grant-twain-titter talk unlike any patois stored in my lingo lobes.

Bands try approximations of Do-Re-Mi.

Three harried nuns, carrying folding chairs, nudge a pride of tottering verility toward an advantageous spot along the curb of 43rd Street.

The mobile speaker's platform is being backed into place on the wide expanse of lawn next to my fountain. The hum of air cushion generators is such the crowd plugs up its ears.

I spot Helium Maid's throne in process of inflation from a huge delivery sphere over by the tennis courts and not far from it the Helium Maid's colorful van surrounded by young things holding autograph books.

I position myself near the fountain—but not too near. If my guess is right, this place won't be safe in, oh, twenty minutes or so. It's 10:10 in the morning.

At precisely half past the hour the phenomenon begins. It's as if an invisible call had gone out from the fountain. At first in the immediate vicinity of the water-dolphin-horse-and-maid—and then spreading in concentric waves—people stir. They approach, haltingly at first, then at quickstep, finally at a run.

I scramble to get out of the way, but not until I've seen the first arrivals. They stop at the water's edge. They look at each other, foolishly grin, they turn about, they're puzzled and bemused. They start away and then turn back.

And then it is too late. People are coming, faces like zombies. They press, they crush. A woman screams. Someone falls into the water. Others have already scaled the sculpture and hang like grapes on greenish bronze, clothing desecrated, skin glistening.

I move against this tide. I dodge, weave, and flatten myself to fit between phalanxes of possessed. Roaming now I see Helium Maid racing for the fountain—a bouncy lass. The fountain has caught her unawares. She wears a slip. Her feet are bare. Half her head is still in electrodes. She trails wire ripped from the curtain.

My head is full of interviews I've seen and heard on tape in Washington—people recounting this experience, mumbling. Well, I, well, I just, well, I dunno. It was an urge, kinda. An excitement, like. A hush-burg excitement. Like, oh, well, I dunno. And then, on deeper probing, they confessed to feeling sexual excitement. Old people too. They were the worst. Blushed like virgins.

I am well into the Plaza before it hits me. I'm not affected. But why? Surrogates were made for love long before they turned to spying. I've got the circuits, hormone bags, and all the outer paraphernalia. What do I lack that people have?

But my circuits are jammed with overload at the moment and I don't find the answer. I run on, seeking criminals.

* * *

The Plaza is Spanish, its architecture strictly controlled by the movie main of some dead syndicate. A large geography criss-crossed by streets, five hundred meters long, two hundred meters wide. Presently the area is as empty as a town of death. The sun alone sits on everything, resting without motion: pink marble, white stucco, black wrought iron, brilliant glass, elegant manikin, golden bakery, striped ice cream parlor, parked cruisers, grey streets, beige walks, green bushes. My own agile steps make the only sound.

Then I hear, coming from the left, the shatter of a wall-sized piece of glass; and instantly a metal hanger starts drumming on the bell-like disk of some back alley burglar alarm.

I duck and run, more or less under cover—no wish to shuffle off my immortal coils as yet. I stop, peer, dart, and stop again. Yes, yes. I see it up ahead: a carpeting of silicone before a jewelry store, and, lying on the sidewalk, carelessly dropped, a jumbo of a mallet on the end of a sturdy, wooden shaft.

I tiptoe, crawl. Then, past a gleaming circle of window pane, I look into the mark of the store—and draw back stunned.

Barfield the "Tarker" is inside, Barfield of the Institute. Still clad in that macho leather, as on the

man. I look again. Sure stuff. The man stands behind a counter, before a pile of diamond encrustables dumped from dark blue satiny cases. And he is swallowing them, one by one, like a man gulping oysters.

Suddenly I'm in the grip of a compulsion. I realize it has been there all along. It began when I beheld the emptiness of the Plaza. But it takes hold of me with force now that I see Banfield gulping.

Careless now, no longer concerned with being seen, I enter this store through the jagged hole. Glass crunches underfoot but Banfield does not even look up. In a second I stand beside him. I too dump a case of jewels on the counter. I too start swallowing. I know I've been betrayed—by Dr. Trubots and by PPI. They treat me as if I were Banfield: an ordinary surrogate. But I'm not a lewd and vulgar Tanker. I'm Friday. And I've got PSI.

We go from store to store, from bank to bank. We smash and burn through doors and locks. We find the small and precious things: pearls, diamonds, rolls of thousand dollar bills. Special vessels inside our tank fill with the loot. We don't speak. We're on a special program. We're all intensity and concentration. Not our will governs but Trubots's. And behind Trubots stands some shadowy client of PPI's.

And then both Banfield and I sense that time is up. We part and

go our separate ways. Both of us merge at different points with the giant, mesmerized mob around the fountain.

Soon hell breaks loose. The crowd stirs then erupts. The thrill is broken. People scream, rush, trample. Frozen policemen come alive, recall their duties. Sirens start howling. Lights start to flash palely in the sun.

I wander about, observing, stunned. My PSI is wounded to the quick. My illusions of autonomy, efficiency, and decency are shattered—like the many cruiser wrecks that crowd the streets. I feel ashamed, undone—like Helium Mapd, led by a solicitous group of men back to her colorful van, she is in tears. Her throne, near by, hangs up into the air, partly inflated, partly slack. Helicopters have begun to buzz above.

Then I see MacGiure. He got here—obviously just in time to catch the fountain's whammy. He stands bedazed, hitting the side of his head with the flat of his hand. His eyes are a little out of focus. He looks at me but doesn't see me. His mouth is open, slack. At last comes recognition.

"What happened?" he asks.

"You tell me," I say. "I just came out of it myself." And that's no lie.

"You too?"

"Me too," I say. "Me too, brother."

"Did they rob the joint?" he

asks, gesturing toward the Plaza.

I nod. "Think so. I think they made quite a haul."

"Gopher goo," he says, and his eyes freeze a little with inward apprehension. "Come on, Friday," he cries suddenly, "let's you and me go and hang one on."

"All right. But in a second I want to take a look at that fountain."

I lope off to take a look, heavy with stolen goodies. Yes: all that pigton facial marker dabbed on with such care during the night is gone. Rubbed off, dispersed. What did they use to seal the stuff during the night? A water-soluble polymer? A time-decaying encapsulator sensitive to humidity? To be discovered, to be learned.

I watch MacGuire sopping up the crop. One hour, two hours, three. I learn what he is really like: a sad sack and a loser. He tells me all. The alcohol robs him of inhibition. Eighteen reprimands, four demotions. Five transfers to shield the Bureau from embarrassment (I gather). Two divorces. And he's an alcoholic, too; no query about that!

That stranded whale I scraped some days ago begins to sink. Is MacGuire the kind of man the FBI assigns to crack a major crime wave? Who is behind this thing? And come to think of it, would PPI send me on this mission pro-

grammed to take part in the looting unless the client knew about it? PPI is strictly neutral. All we do is serve.

Well! I think. You've got me figured wrong—Dr. Trubone, PPI, FBI, and other secret clients. My work means all to me. I won't be used. If you want me to steal and rob while pretending to be solving crimes—okay; but tell me in advance. I'm not just your ordinary tool. I've got my pride.

I ponder the case, plot revenge, and listen to MacGuire all in one. We're in a darkish yum-yum place full of shaven-headed space stunts awaiting shipment to the Lunar mines.

MacGuire is going on and on about his youth. His coat is off, his sleeves rolled up, his tie yanked loose. He has regressed now to the point I learn why his mother never loved him, and he tells me how the surrogate she rented to baby-sit him at age five, the only being who ever loved him, truly, the only being, a sweet, wonderful Crossford T-14 from England (they don't make them like that anymore)—he pauses, looks at me with an odd gleam in his eyes, then goes on: "Well, Friday, one day she fell in love with a washing machine and left me for a hand-drummer."

This is supposed to be a joke, one of those little diamonds of hilarity MacGuire has been embedding in the soft mush of his drunken babble all afternoon. He is like that

self-pitying, vindictive, and . . . hilarious.

I don't even pretend to be amused, but he whinnies, gags, sputters, and turns red if it is so funny—and ends up coughing with such violence, I am obliged to pound him on the back.

Then it's 1600 and a gong sounds above the bar, whereupon the space starters start going "pop!" They pound their glasses on the tables.

Four in the afternoon in this blue-law region means that surrogates can start soliciting, and here they come, slinking, hipping, slithering out of the greasy shadows of the back—eight third rate Matrons Ferns in phosphorescent gowns. The space starters have gone gorilla.

All eight, in turn, come by our table. They lean across, warbling their invitations. I hear the defective squeaking of cheap fragrance pumps but can't smell the effluvium, having no nasal circuits. MacGuire shakes his head. Not in the mood. I just stare to make them go away.

And then, ram! Something whangs my PSI. I know I'd get a clue, some cow or udder (to use a terrific phrase I heard this morning). It was the squeaking of those fragrance pumps—and thinking of my nasal circuits—and recalling all of a sudden that article in *Chronos* about that bordello dome in Vegas where no human has ever refused a surrogate's solicitation.

"Hey," MacGuire cries when I rise. "Hey, where you going?"

"West," I say. "See you around."

Despite Dr. Trubate's negative programs, I'm going to solve this crime. I think. My brain is like a magnet. The oddments of evidence act like iron filaments. They're lining up nicely, pointing to a target.

I must regurgitate this loot in my trunk and send it on to PPI. The urge is great; it must be a programmed impulse. But after that I'll be light again, free again. I'll take a train. Will travel, will snoop.

"Pheromonal," I mutter, moving toward the dial-a-door. "Pheromonal!"

"Hey, buddy, can you spare a ten-spot," asks the thin, repulsive bum. If I pay him I have the right to beat him to a senseless pulp right here and now amidst the green and rolling lawns of Pornorama's outer reaches. He will bleed and vomit nicely, too, and at the end he'll even 'die.'

I pass him by. I'm here to visit Madam Smith on business, not to sample her dome's delights.

The dome is not one dome but ten, each shaped like a classic type of breast. The guard told me to go down Bushwack Lane, keeping to the left, past Rape Valley to Pubescent Groves. And then a sharp right. I'll see it from there, can't

miss it, the building with the hirsutissia bushes flanking the palpatdoor.

It's a long walk and a weary argument with six burly Bores who came from the same mold as me. But at last they take me down and show me into the boudoir of what Chromer, in its usual style, called the nation's foremost whorotical-artist.

She receives me, a very fat woman, lying in a titanic bathtub. A black ocean of trembling joy-gel hides her massive charms.

"Hi," she says. She winks an eye. "You're cute, you know. You want to work for me, do you? You're modified, ain'tcha? Very nice. What does Bucks and Boys want for a model like you?"

I seat myself on a naked, kneeling, bent-over male (furniture by the Mann-Sad Combine).

"Madam Smith," I say, "I'm here on federal business. I'm with the FBI."

"Oooh," she cries and almost rises, showing me her planetary nams. But the joy-gel is too viscous. "I like you boys," she says. "I'm a patriot. Didn't know they used surrogates, is all."

"Madam Smith," I start again, "what I've come to ask is this: the perfumic putups used by your ferns and bucks—they're said to spread a patented effluvia. It's supposed to contain a proprietary ingredient. I'm here to ask about that."

Now she is suspicious. The pattern of another personality invades

her face. Her eyes turn hard.

"You're not FBI," she says. "Get out of here. I've got threads," she adds. "I got plenty of friends. Don't get ideas. Go on, pulverize." And the joy-gel trembles as she goes back in its depths.

I've done research in preparation. I can't be begged off just like that.

"Does the name Balthaz-Jones mean anything to you?"

I just named the secretary of agriculture. Two days of frenzied digging told me he came by a whopping block of Pomorams stock a year ago. Soon after that Pomorams rapidly climbed the bordello rankings.

Ruby Smith is furious. Her eyes blaze hate and fear. She doesn't say a word.

"Look here, Madam Smith," I say. "You can have it one of two ways. You can tell me where you get those pheromones and no more will be said. Or you can refuse. If you refuse. . . ."

"We don't use any pheromones."

"Yes, you do. I saw six drums in the basement of Impotence Nixed. I've got samples here." I show her two phials. "All I want to know is where this came from. It would save me time."

"You'll never get out of here," she growls.

"Sure I will." I decide to give her a demonstration of my lesser powers. My elbow lasers blaze blinding streams, my knees shoot

flame, my unatomically gaping mouth emits a sonar that shatters every piece of glass in sight.

"Stop *stttt!*" screams Madam Smith. She's ripped her arms out of the gel and holds her ears.

"Where?" I ask. "Where does it come from?"

"Beltsville. Beltsville, Maryland."

"The Ag Research Station?"

She nods. She's miserable.

Just then her Beesers come crashing through the door. My lasers blaze again. I walk out past smoking metal wreckage, through clouds of plastic fume.

• • •

I'm flying high—and in more ways than one. Turbo should never have betrayed me. The double program in my lobes has opened up the floodgates of my PSI. Maharishi only knows what molecular sicknesses, what ion-exchange reactions, what chemical catalysts the Doctor has set going. I feel a stratospheric kiting in my brain. I'm beat on deeds no autogate has ever dreamed.

I'm flying also in another sense. An SST wings me toward the D.C. Metrosplex. I want to arrive undetected, and who flies nowadays? The tube trains are faster.

The plane is nearly empty. It's fuelled almost entirely by subsidies. The travel facilitation specialists don't even pretend to serve. Four

play cards toward the front. One donned a skin-tight gym suit after take-off and sits in the aisle nearby engaged in yoga. I watch her.

She has contrived somehow to put her left leg over her right shoulder. She listens to her knee. Her arms are raised, her fingers flared. Her index fingers touch her thumbs making two cosmic eggs. Her eyes are open and rolled back. I see the moist whiteness of her eyes lined with delicate arteries spreading like the roots of some upside-down, internalized Kandahari tree.

Anesthetic circuits in my brain sing some forgotten program: Oh brave new world—such creatures in it!

I muse and ponder, turning great deeds this way and that. And time flies. My yoga friend approaches, but does not quite reach, *samash!*, when the engine pitch changes. Little bells ring, and we start our descent.

As we come in for our landing, the pilot comes on the intercom. He directs our attention to a vast, reddish area clearly visible from the left side—an area that looks surrounded by something at least as formidable as the Chinese wall. Oh, yes. The pilot tells us all about Godzilla.

I look down and see the beast in its hindersburg playpen. It looks quite small, forlorn, and lonely from this altitude. I see it in the center, oblivious of the herd of cattle sent in as an afternoon snack. It

sits unmoving. Its tiny eyes gaze mournfully toward Japan.

I am not very much surprised when I see MacGure at the gate. He looks relaxed and almost gay. He sports a flower in his lapel—no doubt it squirts. Long before I reach him, he holds out a hand, palm up. But it's not a greeting.

"I'll take those bottles now," he says. "Hand them over, boy."

"What bottles?—And by the way," I ask, although I know the answer, "how'd you know I was on this plane?"

"The bottles," he says. I reach into a pocket and hand him two phials. "You're something else," he says, staring at the darkish liquid in the containers. (The liquid happens to be Coke.) "You crossed some awfully big animal, boy. You're in trouble, boy. But I appreciate what you've done for me."

"What did I do for you, MacGure?"

"You've got me off this case—and boy, am I ever glad."

He maneuvers so that the flower in his lapel can squirt me in the face, but I maneuver right back.

"Who put on the heat?" I ask. "Balthasar Jones? Of Agriculture?"

The fan goes from his face. "Don't ask me no questions and I'll tell you no lies," he says, backing. "By the way, call your boss. Trubot, is that it? You're fired too,

friend. See you around."

And he rounds, hand raised, holding the phials.

My rented copter is hidden a kilometer from here, and "here" is the Beltsville facility of the Agricultural Research Service, a cluster of buildings with a large yard and tankage and machinery behind them. One of the buildings dates way back. It has a tower with a clock. I rest in bushes waiting for the wind—it blows in a southwesterly direction, which is nearly perfect—to drive that block of clouds way yonder over the bright sickle of the moon.

The place swarms with uniformed guards. Lights probe about seeking intruders, seeking me. The FBI, and PPI; and Trubot and the higher-ups; and no doubt also Balthasar Jones, Secretary, Agriculture—they all have guessed that I might be lurking in these shadows.

Trubot sounded shocked over the telephone when dutifully I called him. "Stop this nonsense about PSI, Friday," he said—and I could see his indignant features, the grey, leonine head, the natty blazered jacket. "You're a robot and you'll do as you've been told. I want you to report home by evening."

"Yes, sir," I said.—But damn it all, I do have PSI. So here I am in Beltsville and not back home at

PFI.

The cloud is coming—slowly. I have time to record a few more observations, to tell the history of this crime to my sphenoidal sinus.

Out here at Beltsville they do research on pheromones—sex attractants. Started long ago, in the troubled century, as a way to zap some insect called the gypsy moth. But research can never stop. Forward, progress. If you can catch the little pests, go for the big ones. Formulate new programs to fill in the voids made by success. More people, more budget. Bureaucracies are just like surrogates. They never die.

And then no doubt some love-sick scientist or other, spurred by a groove chuck, went to work at night on a little innovation of his own. And management found out about it. Slapped Top Secret on the files. An Eyes Only envelope informed the Secretary. Who knew how to use the information. . . .

The cloud approaches, nibbles at, then swallows up the moon. I reach into my pocket and take out the real samples of pheromone I took at Ruby's pleasure dome. I toss the bottles and they burst on pavement.

Now it's just a matter of time. And here they come: uniformed guards by the dozen, and people from abandoned cruisers on the streets. They make a little mob. It's not the Plaza, but it's the same idea. I pick up my blowtorch and amble undisturbed toward the yard,

the tankage, in the back.

Soon I have found what I am looking for. Three huge tanks, each labelled "paint." Some paint. One is for women, one for men. The third one holds an encapsulating polymer with twelve hours of water resistance. Perfect for fountains.

My circuits are in gleeful excitation. I activate my blowtorch and start to carve a good-sized hole in the side of Tank Number One.

The pink of dawn reveals the city down below. Not a spirit, not a soul, no flatus in the seat of power. Washington is empty. Hot lines, cold lines, lukewarm lines; all dead. They're all gone to Beltsville: man and woman, young and old, natives and diplomats. I've got it all to myself. I survey it from my lonely chopper. Then I bend the rotor slightly and my hover becomes a forward rush. I'm headed for the zoo.

I got the notion in the airplane as we landed—was it yesterday? Godzilla and I will soon be joining forces. If my guess is right, the poor beast, like me, has PSI.

I'll ride safely on its scaly neck directing its exploits. We'll swallow up this city in all leisure. An FBI burger will start us off. Then a dish of mashed Congress. A mess of agencies, maybe. The White House for desert. And if we get thirsty, we'll drink the Potomac. ★



GALAXY BOOKSHELF

Spider Robinson

Robert A. Heinlein, Stranger In His Own Land, George Edgar Stuesser, Newcastle/Borgo Press, 60 pp., \$1.95

Experiment Perilous: Three Essays On SF, Bradley, Spinnad, Bester, Algor Press, 34 pp., \$2.50

Anatomy of Wonder, ed. Neil Barron, R. R. Bowker Co., (Xerox), 471 pp., price unknown

The Happening Worlds of John Brunner, ed. Joseph W. De Bolt, Kornblat Press, 216 pp., \$12.95

Double, Double, John Brunner, Ballantine, 222 pp., \$1.25

Quicksand, John Brunner, DAW, 221 pp., \$1.50

Under Pressure, Frank Herbert, Ballantine, 230 pp., \$1.50

A Scanner Darkly, Philip K. Dick, Doubleday, 220 pp., \$6.95

The Best of C. M. Kornbluth, Ballantine, 338 pp., \$1.95

I WAS A BACKWARD child, but then so were most of us.

You see, I grew up in a rather more Golden Age than this, an era when there were so goddamn few anthologies that virtually every one of them was fabulous. Science fiction may be a long time recovering from the present surfeit of anthologies: the average quality has grown so miserably thin that I'm certain we have turned off by the thousands the potential readers who could have been hooked forever by, say, *Masters' Choice* or *Tomorrow the Stars* or any of the magnificent Conklin collections—if only they could find the damned things under all those hundreds of dreary asenetic assembles thumbtacked together to getsocontractmakeabuck (I'm still waiting to see a six-million-word antho-antho called *The Best of Roger Ebeard*).

It was a black day when the first alleged anthologist began inviting submissions. There's a place for slash piles, a place for experimenting: the magazines, whose readers are a priori prepared to accept that, and who have plunked down their money (considerably less money) for not only the stories, but for the up-to-date science and review and futurc features, for a reasonably current knothole into the world-of-sf As It Happens. But that is *not* what you want to leave lying around the library for inquisitive young minds to vamble over.

If the first eight stories in an antho bored me, I may keep reading (because, say, the ninth is a Kornbluth and I know what that means)—but a bright eight-year-old will long since have wandered off to where they keep the early Saint stories, two aisles over. So, quite likely, will any newcomer to sf.

I got hooked on sf in the library, back when nine anthos out of ten (the library's total sf section at the time) were pure dynamic (mostly because they were so few, because anthologies of sf stories were a new innovation and each anthologist had available to hand literally hundreds of hitherto-uncollected gems from which to select. Which is not to take away from Groff Cucklin or Beller & Dickey or Laurence Janifer—they got there fastest with the mostest). At the age of six I was given a copy of *Rocket Ship Galileo*, and the top of my skull

came off. I raced to the library, where I had been told I might locate more books by Mr. Heinlein, and I found them—and curiously enough, they were all lumped in with a buncha other books that *also* had a yellow rocketship posted on the spine. In some way these other books must be like Heinlein . . . and so I tried one, *Invasion of Earth*, a Conklin antho. Wham! I was a science fiction nut (not an "sf fan"—it was years before I learned that fandom existed).

I shudder to think what might have happened if I had selected something of the quality of the average Roger Elwood quickie. Why, I might today be working for a living!

(The few really good anthologists working today are having one hell of a time selling anthos now—the publishers know that Anthos Don't Sell, and they can prove it. Nobody bought all those Elwoods . . . well, maybe they bought one.)

What all this leads to is that I spent the years from six to, oh, sixteen just absorbing antho after antho and finding them solid, letting dozens of monumentally Great sf stories be imprinted forever on my brain before I was old enough to have the sense to make *not* of title and author. I told you I was a backward child.

And I think—here at last is the point—I think that a majority of you did too, grew up, or at least absorbed most of your early sf, at

about the same time period. Simply because those were the best times for catching the attention of new readers, because never again since then has it looked so good from the outside, been so attractive to a neophyte (and I suppose you could throw in the postwar Baby Boom to nail the argument down).

And I further suspect that like me many of you remember the stories—but not always the title and author. Because in them Golden Days of Library Littering, there was no need to remember authors' names: just pick up the next antho and they'll all be winners. Not until times go lean did I get hip to the prudence of following a good byline (and nowadays I agree with Harlan that the reason they put title and author in the biggest type is because they're the most important words in the place. Right up there on page one, see?). I wish I had a quarter for every letter I've gotten saying, "There's this story I read many years ago about this planet where night only comes once every thousand years and they all go gone and do you know what it's called and who wrote it and where I could get it?" (If you don't know, see next month's column.)

Well, every so often I stumble across one of these forgotten immortals and scream, "I know this damn story! So that's who it was!" And I suspect you do too.

So I'm going to try something—a little bit of a game. Somebody (a-

gain, I dunno who—some anthropologist of yore) once made a dandy game out of running only the first lines of the first stories of several of Miners—and challenging readers to name title and author. I propose turning that around a bit. In the last several months I have run across over a dozen stories that were, for me, memorable, that burned themselves into my cortex at a tender age and still resurface occasionally in my consciousness. Although none of them is of the "tomato surprise" persuasion (which the late Rod Serling overused so heavily in *Twilight Zone*), each happens to have an extremely memorable *last line*, which ought to re-evolve the story for you if it's in your files at all.

So that's the pitch: I give you the last line, you give me title and author. No fair peeking ahead to the end of the column—keep a list and compare when you get there. The first couple:

- 1) "Here they come, with an insulting thick rope."
- 2) "It is a word which will explode this planet like a stick of dynamite in a rotten apple."

I'll keep sprinkling them in there, over the next few pages, and you see how many ring bells. I have a secret plan . . .

All right, now that I've ranted about the inflationary devaluation of

the anthology, let's go on to SF vs. Academic.

They've been going round on *Aur* one for a couple of years now, ever since it went respectable, and a considerable amount of waste heat has been produced thereby. On one side you got academicians insisting that it should be judged by the standards of *LiCrit*, and on the other side you got Dena Brown saying, "Let's put it back in the gutter where it belongs."

It should now be obvious where I stand: seven years as an English major have convinced me that literary criticism butters no parsnips. I used to think it was only harmless, like masturbation, but now I don't anymore. I've seen too many people who can really write seduced into producing Enduring Masterpieces instead of good stories, conned into writing to please the *LiCrit* squad because *shew* egotism sounds the most authoritative (it is, I will grant, the only real assurance that people will be forced to read your works long after anyone's interested in them).

And so I tend, at least, to view with alarm rather than point-with-pride when the literary establishment moves in on it. Many a great restaurant has been destroyed by being discovered, and come to think, the Indians must feel much the same about North America.

And sure enough, here comes a missionary to tell me that my gods are inferior. George Edgar Slusser,

author of *Robert A. Heinlein, Stranger In His Own Land*, spends fifty-six pages proving that Heinlein can't write his way out of a paper bag, and then spends three full pages listing Heinlein's book publications alone (if he had added magazine sales, I calculate he'd have needed five more pages, and anthologizations would most surely have added another ten or twelve). The irony of the juxtaposition obviously escapes him.

As near as I can figure his opening argument, Slusser is offended because you couldn't graph an outline of a Heinlein plot and come out with nice regular curves and repeating patterns. The hoary old barbarian bestseller violates the precious Dramatic Unities—*tsk tsk*. From there Slusser uses all the classic tools of *LiCrit*: As-Hatchwork (quotation out of context, non sequitur, post hoc, ergo propter hoc reasoning, outright distortion and plain stupidity) to show that Heinlein is an immature, irresponsible, morally bankrupt bungler who wouldn't be allowed to run loose in a sane world.

Well.

I find this pamphlet as significant as an urchin defacing the base of the Taj Mahal, and if you want to pay as much to read it as it would cost you to score the paperback of *Stranger In A Strange Land*, you go right ahead. I can't give it a Galaxian Award—because I'm not at all certain that Slusser knew better—

but I will give it the John Shirley Award for Pointless Hostility.

On the other hand, respectability has its advantages.

For one thing, it provides a forum from which sf authors can rap about their craft. Some hold this to be a crime, too, on the theory that any verbiage about writing is a waste of time, and that a writer doing so is wasting valuable time. But I find writers' shop-talk at least as interesting as anybody else's, and anybody's shop-talk is the most interesting stuff on earth.

So I rather enjoyed *Experiment Perilous: Three Essays On SF* by Marion Zimmer Bradley, Norman Spinrad and Alfred Bester. All three originally appeared in *Algo!*, a semipro fanzine I know only by its (formidable) reputation (since sf pros can't afford fandom), and all three are tasty. I didn't agree with everything Bradley had to say about the New Wave/Old Wave dichotomy, but I did agree about 95% of the time, and was impressed enough that I'm going to go back and take a much closer look at her fiction. Spinrad's saga of the Finagle-inspired disasters surrounding the publication of *Bug Jack Barrow* delighted me—I always enjoy hearing other writers' publisher-horror-stories; it helps persuade me that it isn't *me* they're out to get. And Albie's piece on the

TO SERVE MAN



Though Damon Knight didn't write this Cookbook for People, his famous story inspired it: *Homme Bourguignon*, *Chili Con Hombre*, *Minceman Pie* . . . 71 outrageous recipes, lightheartedly illustrated; hard-covers, \$6.95 at bookstores or postpaid from:

Owlswick Press

Box 8283 Philadelphia PA 19101

creation of *The Deseculated Man*—although way too compressed—contained rather more vitamins than the usual Bester essay.

I can't honestly say I liked it \$2.50 worth—but if you're one of these affluent fans I keep hearing about, why don't you check it out? On second thought, why don't you send me \$2.50? Then I could afford to subscribe to *Algo!*

(I shouldn't say things like that. Have you heard the true story about the guy who ran classified ads saying only, "Send your dollars now, to . . ." with his address? He made a fortune before the Post Office shut him down.)

Time for a couple more Last Lines. Do you recognize:

3) "The wolves who were then burning their way through the Ozarks, utterly without opposition, the wolves were the Martians, under whose yoke and lash we now endure our miserable existences."

4) "Whereat a great and far-off voice was heard, saying, Poop-poop-poop, and it was even so, and the dogs of Poopy Panda went long in the land."

Oswald.

So respectability also means that the librarians come running, and at that I rejoice, if we're very lucky, library science may one day save our race from drowning in information (see Heinlein's encyclopedic synthesists). And here we have *Anatomy of Wonder*, a truly fabulous compilation of data. It bills itself on the cover as "bibliographic guides for contemporary collections," private or institutional, and for that it will serve excellently. But it also features such valuable research aids as a biblog of books on sf history, criticism and biography; a biblog of other extant biblogs; indexes and teaching aids; magazine and book review indexes; a periodicals list (with editors-and-address); a list of awards (the only section in the book hopelessly mangled and virtually useless) and other goodies.

I did pick out a few choice errors to prove I'd really read (at) it (poor Rick Sternbach's name gets misspelled again on page 233, and on the same page they have Pangborn's lovely Eve choosing between two men instead of three), but mostly I was impressed and enlightened and informed all to hell. I learned, for one instance, that Kenneth Jernagin at the Iowa Commission for the Blind Library, 4th and Keosauqua Way, Des Moines, Iowa 50309 maintains about six hundred of titles in Beallie or recording and will lend same to blind fans. I urge any and all of you to read something good onto cassette and mail it thence—although you should probably query first to avoid redundancy.

I learned *lots* of stuff, and probably will every time I come back to this excellent reference work. The bibliography of sf novels runs from 1516 to today and is damned thorough—and the capsule descriptions thereto appertaining are remarkably trenchant. An invaluable aid to anyone who (God knows why) wants to study sf, and also to librarians, collectors and neofans looking for a thumbnail guide to the representative major works of the field. Thank you, Neil Barron and friends.

Neither of these is a Last Line. One is a fragment of one, and one is a line from near the end (the last

line would give it clean away, and this is at least as memorable).

5) "...and that what clever people have not yet learned, some quite ordinary people have not yet entirely forgotten" (Hint: "Whomp year.")

6) "Angie smiled with serene confidence a smile that was to shock hardened morgue attendants."

One last tilt at Academe should lead us gracefully into the fiction.

It happened that I received a review copy of *The Happening Worlds of John Brunner* concurrently with about eight of Brunner's books—and since Baen is always after me to come up with a decent lead or theme (or even in indignant lead or theme) I decided to review 'em all at once: an Overview of Brunner. But I immediately lost the first book, and by the time Kennikat Press had rather tentily mailed me another copy, I had become too impatient to wait, and read most of the Brunners, reviewing them here one at a time. Furthermore, last month's Harlan Ellison extravaganza has convinced me that Overviews are too damn much work and too little fun. So instead of a whole column of Brunner, you get *Happening Worlds* plus two leftover paperbacks.

Editor Joseph W. DeBoh was one of the contributors to *Anatomy of*

Wonder. Herein he has collected ten essays on Brunner's work, divided into four sections ("Biography," "Prose & Poetry," "Economics & Politics" and "Science & Technology"), plus a James Bligh preface and a lengthy response from Brunner himself. These last two I liked immensely, and I enjoyed De Boh's own introduction to Brunner and his works. The essays themselves (all by men, all of whom happen to be, like De Boh, professors at Central Michigan University) gave me some trouble though. Not that they weren't insightful—at times brilliantly so—or cogently stated. The problem is that to appreciate nearly every one of them, you have to be familiar with virtually every word Brunner ever wrote—and I am not. In too many instances I'm not sure if I agree with the critic or not, and there's nothing more boring than discussion of a book you haven't read (unless it's during an English class and you've just been called on).

But this is certainly not the essayists' fault—how else can you do it?—and if you are a Complicated Brunnerian, this book ought to be right up your alley. And again, I enjoyed all the insider shop-talk kinda stuff.

Unless you're enough of a Brunner freak to want to buy the above, you probably won't much want

Double, Double (which is not an Ace double but a Ballantine single). Not that there's a whole lot wrong with it—there just ain't all that much right with it. It reads like a B- or possibly a C-movie, and I'm sure they'll love it down at the drugstore. *Interstellar Menace* meets a British rock group. It's a shame writers have to do this stuff to stay alive.

Ah, but *Questioned!* There's one of the most amazing and eccentric books in the field, closer to mainstream than anything else I've seen from Bruner. Parts of it delight me, parts thrill me, parts depress me (the parts that are supposed to, I mean), and the only complaint I have is with the rotten thumbtacked ending, which insists on wrenching the book back into traditional science fiction at the cost of grace and plausibility—an outstandingly bad tomato surprise.

The book mostly concerns itself with the psychological deterioration and collapse of a young psychologist, brought on by exposure to a lovely young patient who is either quite mad or a shipwrecked time-traveler. Her tales of the world she comes from—even though he considers them fantasy—point up to him the essential boredom and meaninglessness and oppression of his small-town life, and in the end he comes to believe in her world, not because his logic proves it to be liberal truth but because it's such an attractive fantasy. And because he

frees her legs—eventually he springs her from the baghouse he works in and flees the country with her, with predictably disastrous results.

Right there you got the makings of a fine, poignant novel—but Bruner (apparently in the interests of kicking his poor hero one more time while he's down) throws in a switcheroo that would have delighted Hugo Gernsback and annoyed hell out of me.

I still recommend it—in the main it's an excellent novel—but I have seldom seen such a dumb ending.

Last Lines:

7) "The last thing he learned was that death is the end of pain."

8) "Julio just said: 'Don't yell, Beel.' And then winked."

Speaking of CoD (*Cred of the Denouement*), boy does this next one give me trouble.

I will say out front that I enjoyed reading Frank Herbert's *Under Pressure*, and even stayed up rather late to finish it. But it's got so many enormous holes in it that it would take almost a whole column to *fix* them all.

A random sample: the which-is-the-spy? business that kept me reading with such interest turned out to be a wet firecracker. There was a

spy, but with no conceivable function except to blow himself up with everyone else on the submarine. He tries this at the beginning of the voyage, fails, and never again tries that or anything—he has no plan, and his job could have been done by a deckhand. (He says he didn't kill the man in the reactor room—but then who did smash the communicator that could have saved the man, and why?) The solution to the mystery of why-have-the-last-two-subs-all failed to come back?—not spies, something else—struck me as trite and simplistically contrived—as did the hero's Ingenious Solution. The conspiracy to dethrone BuSecurity's power and influence, revealed at the end, seemed alarmingly like what produced BuSecurity in the first place (ah, but we're the Good Guys). Most extraordinarily of all, the hero, Erinn Ramsey, although we are told that he has a wife and two children, never once thinks of them in the entire nerve-shattering course of the voyage, never even makes reference to them in his thoughts ("tell my wife my last thoughts were of other things"). The wife is dutifully hauled on-stage at beginning and end, and their relationship is described as deep and loving, but she never becomes real—and never at any time do they discuss or mention their children.

This is a convincing psychological drama? The fact that it attempts to be is the book's greatest prob-

lem, for there are no real people in it, only psychological types and syndromes and constructs walking around on legs. They interact fine; but they don't *breathe* worth a damn. I didn't believe the hero's mental collapse at the end; in fact, I didn't believe much about the book. Using atomic subs to steal foreign oil in underwater tugboats a mile long? Oh, that the enemy itself hasn't noticed right under its nose?

Attempting to make the story "realistic" is the book's second worst problem. This is done by an attention to physical detail and authenticity of technical jargon so intense and plausible that half the time I couldn't understand what the hell they were talking about. None of the jargon ever got explained, so it shot right past me, and it ought to shoot right past anyone not familiar with the nuts-and-bolts design layout and the operational routine of a four-man atomic sub-tug. (Are you?) Herbert could have taught me a lot about, say, the specifics of radiation overdose and treatment—but that would have interrupted all the masterful suspense and pacing, and so all he told me was what a man in a hurry would call the hypo required.

I agree that "psychological novels" ought to be written—but then *Scylla and Charybdis* are Samuel Delany's *Tyrone*—which was quite logical, plausible (within its assumptions) and consistent, but dull as hell—and *Under Pressure*,

which is exciting nonsense.

It's also a twenty-year-old book, for which one should make some allowances—but none of the weak points are the kind that time excuses. There's nothing worse than an unbearably suspenseful story that fails to deliver at the end.

A First Line:

9) "He had quite a rum blossom on him for a kid, I thought at first."

And a Last Line:

10) "And Royland would have to try to avoid answering him very sharply. 'Yes. This once we damn well do.'"

I understand this latest Phil Dick novel, *A Scupper Donkey*, is the first he's written without the aid of speed, and appropriately enough it's largely a dialectic on the ruinous cost of prolonged drug abuse. There's a dedication at the end to fifteen friends of Dick's who've destroyed themselves with dope, listing the extent of damages each incurred (seven are dead, three are permanently psychotic, like that)—Dick calls this drug misuse "a social error . . . not different from your life-style, it is only faster." "If," he says, "there was any 'sin,' it was that these people wanted to keep on having a good time forever, and were punished for

that, but as I say, I feel that, if so, the punishment was far too great, and I prefer to think of it only in a Greek or morally neutral way, as mere science, as deterministic impartial cause-and-effect."

The "sin," I think, was that these people wanted to be able to keep on having a good time forever by pushing a button, to rip off the Universe for a good time without paying for it. The "punishment" for this error has always been as drastic, and is not too great, and cause-and-effect is anything but morally neutral.

That aside, the book ain't exactly terrific either. It's the sometimes fascinating, sometimes hilarious, usually deadly boring story of a federal narc so wasted by the drugs he saturates his brain with that he begins spying on himself, and eventually busts himself. This notion could have made an extraordinary novella—but only as wild black humor. What Dick did was waste enormous heaps of paper trying to make it a plausible science fiction novel, thereby destroying it. He sets it in the future, but every time his attention wanders it becomes the present. He throws in a sort of "invisibility suit" which is supposed to make the premise actually possible—if you're willing to believe that the feds have nats without ever seeing them or knowing their names—and he adds a lot of pseudoscientific hogwash about the left and right hemispheres of the

hero's brain each achieving autonomy, for a truly split personality. The end result is madness, but not the divine kind. Along the way you get to watch the background cast who represent Dick's doper friends wittily and engagingly dose themselves into imbecility (a rather short progression), and as the immortal Jethro (of Homer And) once said, "This sure don't fascinate me none."

Last Two Last Lines:

11) " 'Yes, your divinity,' said the captains, without a trace of humor in their voices."

12) "But they had never left a solar system so gratefully or so fast."

Okay. Now we get down to it (I'm putting this here instead of at the end to foil you bums who tried to peek ahead when I told you not to). How many of you figured out what I've been doing? If you don't recognize any of the lines I've thrown at you, then all this has been wasted. If you do recognize the lines and know title and author as well, then you already know where I'm going. But if you find most of those lines hauntingly familiar, naggingly evocative, but can't identify their creator or title, then you'll be as surprised and delighted as I was.

The stories, in order, are 1) "The Rocket of 1955," 2) "The Word of

Guru," 3) "The Silly Season," 4) "The Advent On Channel 12," 5) "The Mindworm," 6) "The Little Black Bag," 7) "The Marching Morons," 8) "Gomez," 9) "The Altar At Midnight," 10) "Two Dooms," 11) "The Adventurer," and 12) "The remorseful."

And the kicker is that all twelve were written by one man, Cyril M. Kornbluth, and the *second* kicker is that they are every one available (along with seven more) in a single collection, *The Best of C.M. Kornbluth*, for a mere \$4.95. To my earlier disparaging remarks about anthos, note this is the most spectacular exception imaginable—this is the one that you should give to that uncle or niece or fellow commuter who's been bugging you to recommend some sf. I haven't enjoyed a book so much in years, and will treasure it always. I feel like having it bonazed or something. I mean it's dynamite. Fred Pohl's brief "An Appreciation" intro to his late collaborator moved me, touched me, made me cry—and the stories made me whoop aloud.

What Cyril felt about the war that ultimately killed him is spelled out in his last story, "Two Dooms"—but I cannot but hate it. I just finished reading the last book Cyril ever wrote, *The Men of Cold Rage* (as "Jordan Park," non-sf, Pyramid paperback), and oh God, if he had lived, the wonders beyond imagining that would now be populating the magazines and bookshelves . . .

If you don't remember each and every one of the lines I led you, go ye forth at once unto the bookseller and give him your tokens saying, "Kornbluth Kornbluth." If you do, go buy it anyhow—you'll enjoy re-reading them.

God bless Ballantine for this re-issue. Just when times was gettin' lean in Anthroville.

Two leads, a buncha hatchet jobs for the bloodthirsty, and a certified masterpiece—are we done? Would I ask if we were? Two more things to mention before I stagger off to the Home For The Criminally Confused.

First, the column in which I mentioned Bakka, the Toronto-based sf store that has a mail-order service, has brought welcome feedback. A lady named Valerie Barney from Calais, Maine has tipped me to an outfit called T-K Graphics, PO Box 1951, Baltimore MD 21203, which has a mail-order operation comparable in size and scope with Bakka, and will avoid a hundred years of hassle with the damned Customs parasites for most of you. T-K's catalogue looks extremely good, and it says here they will pay postage and handling on all orders. I haven't checked 'em out myself—as a reviewer I don't need mail order—but I've asked around and the word is good. Those of you up there in the States, check it out for

yourself—and if you have any hassle, let me know. T-K claims between fifteen and twenty thousand people on their mailing list, so they must be doing something right.

NEWS FLASH!!!

You forgot, didn't you? I only told you a year ago, and you forgot. The assembled ranks of sf publishers are waiting to hear from you—they would like to know what sort of stuff you want them to publish. The writers are likewise interested in knowing what sort of stuff you'd like them to write. This year's World Science Fiction Convention ("SUNCON") will be held at the Pomarikon in Miami Beach, Florida—but if you can't manage to attend, you can still cast your vote for the 1976 Hugo Awards, from the comfort of whatever you squat on when you're at home. Just send \$7.50 for a supporting membership to WORLDCON 35, Box 3427, Cherry Hill, N.J. 08002. They will send you, in addition to other goodies, a bona-fide Hugo ballot for you to fill in and mail. By the time you read this, it'll probably be too late to nominate—but you can at least vote. Let the voice of the readers be heard in the land, tell the nice publishers what you want to see. (And remember, my first novel *Telepath* happens to be eligible this year.)

People who don't vote for Hugos deserve the sf they get. ★

JAY BRANDON

**Up the Irish -
Quinlan forever!**

**The
All-Soul
is calling
Quinlan**



The All-Soul is calling Quinlan.

That segment of the All-Soul designated to chronicle the history of the man known as Quinlan reporting:

The first recorded case of disciplinary action taken against Quinlan occurred in [conference] 2005 A.D., Earth-time (Old Style). Quinlan had just finished a term as a man who had acquired a fair amount of earthly goods without any discernible trade or occupation. His soul had just returned to Interim when he was called to a conference with that precursor of the All-Soul, known at that time to Quinlan as God.

Quinlan sauntered into the office.

"You retain human form?" God asked Quinlan, sweeping stars aside with his raised eyebrow.

"It suits me," Quinlan shrugged, and crossed his legs.

"No matter," God concluded wisely. Any being who dwells only on Quinlan's small failings can become bogged down in trivialities for lifetimes.

"Quinlan," continued the Deity, "your case concerns me."

"Don't worry about a thing," Quinlan responded. "As soon as I can get suited up again I'll be out of your hair. I don't intend to hang around Interim very long."

"That is part of what concerns me, Quinlan, what did you do for a living during this last term?"

"Well, it's a little complicated."

"I'll take the time to figure it out."

"Well, basically I was involved in the misappropriation of resources."

"Financial resources?"

"And other kinds."

"I see."

"You'd be surprised at the terrible inequities that prevail on Earth these days. Some people got it all, and the rest are trying to hang on to nothing. The rich get richer and the poor get shut out."

"You've always been quite a phrasemaker, Quinlan."

"Uh, excuse that. I got carried away."

"Not at all. You were saying?"

"Right. Well, when I'd see some poor soul laboring under the burden of just way too much money, or land, or stock, or whatever, I'd just do my best to help him out, and pass the surplus on to some who weren't quite so well off in terms of earthly goods. I really pity rich men on earth. It's easier for a camel to pass through the eye of a needle, you know . . ."

"Yes, Quinlan, I made that one up myself. So your job was basically redistribution of goods."

"Exactly."

"Becoming, in the process, a rich man yourself."

"Well, I had a lot of overhead. And I don't work cheap. If you don't value yourself, no one else will."

"Quinlan, you were a con man."

"You've been talking to my detractors."

"That's hard to avoid doing, here."

Quinlan shrugged.

"Here's why I called you, Quinlan—I just don't think you're making any progress. I don't think you're learning anything."

"In this last lifetime I lived to be eighty-seven, against the express wishes of some pretty powerful and nasty men. I must have learned something."

God shook His wearying head. "I'm not talking about earthly wisdom, Quinlan."

"To each his own. Or His own."

"You mentioned earlier that you were planning to go right back out. I don't think that's a good idea. Take a century or so and ponder your past lives. At least a century."

"Hey! Hey, I can't do that. I've gotta get back right now!"

"Why now, Quinlan?"

"Listen, it's a very critical time there now. As You well know, there's a crisis point in every civilization, when it becomes a race as to whether or not the inhabitants will blow up their planet before they manage to get off it. That's where Earth is now. I've got to be there to help out."

"You want to go to earth so you can get off Earth?"

"Get off, and take some good people with me."

"That's very headable, Quinlan."

Quinlan fidgeted while the Deity thought.

"All right, Quinlan, I'll let you

go back as soon as you want. But only under certain restrictions."

"Hey, I get to pick what I want, as long as I've got enough karma in my account. That's the rule."

"We may make an exception in your case. What did you plan to go back as?"

"Well, there's a man right now in Texas who's trying to corner the bourbon market. I figure he'll make it, in about twenty years. And his wife's pregnant, though he doesn't know it yet—"

Quinlan stopped as he perceived that the ponderous head was shaking. "No?" he said.

"Not this time," said the Deity. "I want you to learn humility, and to gain a sense of community. I'm going to send you back as a Siamese twin."

Quinlan recoiled. "Um—With whom were you thinking of joining me?"

"Let Me see, I believe Biggers is looking for a new term."

"Biggers! Biggers! His last term he lived to be fifty, and died a virgin!"

God nodded proudly. "He is very holy. He has acquired almost enough karma to join Us."

"You're putting a watchdog on me," Quinlan said, and stood in thought. "All right," he said finally. "I'll do it, but I've got to be Irish."

"Very well. There's an Irish family living in Yugoslavia right now—"

"Near the border?" Quinlan asked quickly, and was answered by a slow shaking of the head.

"Make it America, and you've got a deal."

The Deity stared hard at the dealer, and finally said quietly, "America then."

"Good," said Quinlan, "I'll go get ready." He stopped on his way out. "We gonna be joined at the, uh, elbow?"

"The hip, I think."

"Ah well," replied Quinlan. He started to hurry out, then stopped again. "A few minutes ago," he said, "You referred to Yourself as Us. Have You already been—joined?"

God nodded. "A very few have achieved that blessed reward, Quinlan. There are also saints, and near-saints, on Earth at this very moment."

"Uh huh," said Quinlan, and he was gone.

God dismissed the incident from His mind until later in His heavenly day.

"Did Quinlan take my Siamese twin offer?" He asked an assistant off-handedly.

"Oh yes," replied the angel. "He and Biggers have been there for—" He consulted a card. "—twenty years now."

"And what is Quinlan doing?"

The angel consulted the card once more. "He's at medical school. Wants to be a surgeon. He's specializing in—"

"—surgical removal of Siamese twins," the Deity finished.

"Hey, that's right. I have a feeling he's going to be pretty good at his work, too."

"I'm sure he'll succeed."

"Yeah, and about that, Chief, we've been getting some pretty steady prayers from Biggers, asking that he does."

God nodded sadly.

"You know, Chief, before he went down this time, Biggers had almost enough karma in his account to reach Nirvana. And after twenty years with Quinlan I think he's earned it. But the man's about to have a breakdown. We may have to yank him early, just like last time."

God gave His approval.

"But wait," He said, "until Quinlan has completed his medical training."

Little more was heard of Quinlan for some time thereafter, until one day, millennia later, when he was found in the waiting room at Interim. Quinlan rubbed his eyes and looked around him at the other quietly waiting souls. "Boy, I didn't get enough this time," he said.

"Enough what?" the soul next to him asked politely.

"Enough anything," Quinlan replied. "I was a scout, way out on the edge of the galaxy. You ever spend any time in a one-man scout ship?"

"I don't think so," said his neighbor.

"God, it's terrible. You've got your movie tapes, your mall tapes, your woman tapes, your dream tapes and pretty soon you start feeling like a tape yourself. I've got to spend some more time with people this time around."

"There aren't going to be many people to spend time with," his neighbor informed him.

"Yeah, I noticed that last time out," Quinlan said. "We're kind of dying out, aren't we?"

"We're Moving On."

"Oh, is that it?"

The other nodded. The One is filling. More souls have passed on through Nirvana than remain behind."

"No kidding," said Quinlan. "Well, when I get back I'm certainly going to do my part to perpetuate the species." He looked closer at his neighbor. "Don't I know you?" he said.

"Quite possibly. I have been many men and women."

"Hey, I know. You were Willie Sutton, weren't you?"

His neighbor smiled faintly. "Yes," he said quietly. "I remember that term." He laughed ruefully. "That one set me back a bit in my karma account."

"Yeah, but it bought you some good memories, I'll bet." Quinlan laughed.

"Vivid ones, at least," said the former Sutton.

"Yeah, I knew you then. I was—"

"You were Quinlan. You've been Quinlan every time."

"Yes," said Quinlan happily. "I suppose I have been."

"There's one thing I've wondered about," said Sutton suddenly. "You know, don't you? When you're back, you always remember who you are."

"Sometimes," Quinlan admitted. "Pretty often, in fact, lately."

"How do you manage that?"

"I had it written into my contract."

"Contract? You have a contract?"

"You mean," said Quinlan innocently, "you don't?" To drop that line of inquiry, he added, "What are you going back as this time?"

"I'm going to be a monk on Accurus."

"Oh," said Quinlan noncommittally.

"Yes, I'm looking forward to it. I think this will be my last trip."

"Oh? Well, good luck. That sounds real nice. That's, uh, that's good." He nodded politely and walked away, muttering again, "That's good."

"Good and depressing," he added when he was out of the room. That's when he got the call again to report to the One.

God was no more. He was enhanced; He was More Than God. He was well on His way to being the All-Soul. Quinlan, still in his

mortal form, could not look at Him. The Voice was deafening when it said, "Quinlan!"

"I'm right here," said Quinlan.

"Quinlan," said the Voice, more quietly. "You have not many trips left. Man is a dying species."

"Really?" asked Quinlan in an interested voice. "What's going to replace him? I've had my eye on a tribe of very advanced apes in the Archelon system—"

The Voice was louder. "Nothing is going to replace Man. There will soon be no more use for him. Soon all will be part of the All-Soul."

"No kidding?" asked Quinlan, hedging away. "So soon?"

"Time is at an end, Quinlan. There will soon be no more need for the testing and training program."

"Well, I hope You and the rest of the All-Soul will have a nice time. And be sure and look me up some time. We can—"

The Voice interrupted him. "You will be a part of Us then, Quinlan. Without you, We will be incomplete. And without Us, you will have no existence."

"Uh huh," said Quinlan. "And what if I don't want to join?"

The Voice became calm, grave. "We will be calling you, Quinlan. Henceforth, you will always hear the Voice, calling you home."

"Well, that's fine," said Quinlan. "You keep calling, and when I'm ready—"

"Quinlan," said the Voice, as

Quinlan turned away. "You were made for Us. You were only born in order to come Home again someday."

"I'll bear that in mind."

It was immediately after this meeting that Quinlan made his daring daylight raid on the Karma Bank, and went back as an alcoholic, nymphomaniac millionaire whose metabolism made it impossible for her to gain weight.

It took half a heavenly day to track the culprit and assemble evidence, and by that time Quinlan was forty-five. It was decided to leave Quinlan in her/his current status, but to collapse her/his financial structure and render her/him frugal. Quinlan appeared in Interim a few heavenly minutes later, having killed herself/herself by way of some very cheap liquor in combination with exposure to the elements.

"Whoaaa," said Quinlan weakly. He staggered through the waiting room, a ridiculous exaggeration, since he no longer had a physical system with which to circulate alcohol.

Sentence had already been passed, and Quinlan was taken away. "Did you have enough of everything this time?" asked the Voice, before he was out of sight.

"Willie?" asked Quinlan, squinting in the direction of the One.

"Willie is a part of Us now," responded the Voice gravely.

"So long, Willie," Quinlan called, and he was led away.

At the end of his sentence, when Quinlan appeared once more before the One, there was no trace of the physical in his composition. Quinlan was, like the One, a creature of pure spirit.

"Where," said Quinlan. "I didn't know You still had a Hell. D'You know I was the only one there?"

"Yes," said the Voice.

"Well, what now?" asked Quinlan. "I'm ready to get back. This time I'll take any model you've got for me. I want you to see that I'm repentant and all. What have you got, a hunchback? Leper? Screen-writer?" His voice trailed off as he looked up expectantly.

"All extinct," said the Voice. "All have come Home. All of Man."

Quinlan felt a chill. "Everybody? Willie? Sally?" He began calling. "Harry? Louise? Are you in there? Where are they?"

"All are here, Quinlan. All are dissolved in the One." The Voice grew more ponderous. "We are the All-Soul now, Quinlan. You have no Home except here. It is time for the joining."

"You're the All-Soul, then," said Quinlan, his panic gone. "Or the All-But-One-Soul. But you don't need me. I'm going back. I told You about that species of ape. Send me back as one of them. In a few thousand millennia—"

By LEONARD ARNOLD QUINN, Editor-in-Chief

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"It is not possible," said the Voice, Our Voice, calmly.

"Sure it is," said Quinlan. "You can do anything. Make me a mutation. An ape with a mind. I'll stay with them forever."

"You are not one of them, Quinlan. You are one of Us." We reached for him.

"No!" screamed Quinlan. We drew back in pain. "You can't take me if I'm not ready to go," he shouted. "I'm not one of You!"

"Listen to me," he went on, growing calmer. "You've all forgotten. Forgotten what it is to be what I am. A man. I am the proudest thing in the universe. The only thing that walks in the galaxy and names himself. It doesn't matter if I have two arms and legs or tentacles growing out of my forehead. As long as I live, and breathe, and think and create and speak what I think, I'm a man. And I won't give that up!" He was shouting again.

"We are calling you to Us," We said, with some heat.

"I won't come," said Quinlan calmly. "Now or later. You'll just have to do without this one. This soul is mine. And I won't give it up."

"You know what this reminds me of!" he asked suddenly, striving at the memory. "This reminds me of when I was taking drugs of one kind or another. When I was sane and sober, I knew what the world was, and what I was in it for. I had

all the answers. And then the drug would take over, and show me a new reality. And suddenly I really knew the answers. Logic I had never seen before. And as long as that feeling lasted, I knew that I was the only man in the universe that knew what it was all about.

"Then I'd come down, and my fever wisdom became gibberish. Until the next time. And I never could figure out which point of view was the right one."

"That's how we are, You and me. You know You're right, and I know I am. And I'll never give up my point of view."

He stopped, and then suddenly shouted again. "Listen to me, you bureaucracy of souls. Remember with me. Remember how it is to be lonely, or to be with someone else without engulfing each other. Or to be by yourself and not mind it, to relish the solitude."

"I can't come with you," he sobbed. "Send me back, because I can't stay here. Take me," he added, almost defiant again, and it'll be just like you swallowed a chicken bone. For eternity. We'll just be choking on each other forever."

"Try to remember," he trailed off. "Some of you—Some of you could remember if you try."

We conferred hastily, and then the Voice spoke to Quinlan again.

"We will grant you your request, Quinlan. We will give you one more term. One more lifetime, as the only human in the galaxy. One



DIRECTIONS

Dear Mr. Burt:

Jerry Pournelle's article in the June issue of *Galaxy* was particularly intriguing. As a meteorologist I found his report of the lack of solar maximum capacity so. That this lack could be due to the sun having "gone out" fits with other information. I seem to remember reading in the local paper a couple of months ago a article in which a group of astronomers reported having detected an increase in the rotational rate of the sun (this would be hard to detect since the rotational rate varies by latitude). If the sun were collapsing, conservation of angular momentum would cause an increase in its rotational rate.

In last month's *Scientific American*, James Eady described (with highly convincing evidence) the 400 year sunspot cycle. Of special interest is the accompanying chain of annual average temperature. This should indicate (with some assumptions) the amount of energy reaching the Earth. The variation in annual temperature fit the sunspot cycle very nicely. (Climatic change can be explained by these variation in temperature. And as an extension, if there are 400 year cycles, why not 4 million year cycles and thus the ending

of whole species?)

Then if the sunspot activity is evidence of the solar energy producing mechanism's operation (convection currents), the absence of these would be evidence of the lack of a production of energy (and a lack of balance and a general cooling and shrinking and speeding up of the rotation of the sun).

I work near an office which monitors solar activity. I wandered through the other day and casually asked "How's business?" The solar forecaster on duty stifled a yawn and showed me the single, small, high-latitude spot on the sun. Not much for what's supposed to be a period of maximum activity in the 11 year cycle! James Eady remarked privately several months ago, "If we don't have any activity by this time we're in trouble." When did the blues bloom?

With the gravitational collapse of the sun, perhaps the increase in internal pressure reignites the energy producing mechanism. The sun would then expand as the center becomes hotter and more energetic. With the primary heat producing mechanism operating only where the pressure was sufficient, convection currents, sunspots, would occur.

As the sun expands, the pressure in the center could lessen to the extent where the mechanism cannot be supported. Thermal momentum could carry the expansion well beyond this point. Then the sun would cool slightly and the cycle would repeat.

The sun (and thus others like it) would be a variable star. An explanation for the sun's variability might explain the nuclear mechanism for variable stars with a more rapid period.

Whenever I get a little self-satisfied about our understanding of the universe, something ghastly comes along to humble me. But I am in a rather lucky field. Meteorologists don't know enough about the physics of the Earth's atmosphere (or any atmosphere) to have many "proven" theories. Even with all the potshots whine've greeted science, understanding comes only after years of dog-work.

Roy Kribbel

2747 Beale Circle
Omaha, NE 68122

Does complete and final understanding ever come at all? I wonder.

Dear Jim

Philip Schaffler's article is the sort of thing we've already had too much of. Does the Literary Establishment ignore sf & say that it's all Buck Rogers junk? Very well then, we will ignore the mainstream & say that it's all Alexander Portney junk. That'll fix them! Who wants to belong to their silly old Establishment anyway?

As I say, it's been done before (Campbell did it for years), and it doesn't really help. The man who accepts everything the Establishment tells him & the man who rejects everything the Establishment tells him are both slaves.

And Schaffler's argument is outdated. As almost everyone else seems to have noticed, the academic world has stopped ignoring sf. Now we have sf courses, and scholarly sf journals, and even Cliffs Notes, so that the people who have to study the books don't have to read them.

Funny thing about that. Has anyone pointed out that the only contemporary

writers who are noticed by Academe are those who have already been recognized by the sf world, like Asimov, Clarke, Heinlein, Herbert, & La Guai? Makes sense I suppose. Having to wade through all of sf without a guide is a fate I would not wish on the most pious of poets.

I'm glad that some good sf writers have been recognized, but this situation does seem to lead to a paradox. Writers like Silverberg & Malberg, who are perceived by much of the sf world as too "literary," fail to get the attention in their own field that would enable their supposed natural audience in the academic world to notice them.

Gets & Alter were up to their usual high standards, but their call for more government (perhaps computer-aided) misses one important point. As government grows bigger & more complex, it does an increasingly worse job of giving people what they want. Not only does Big Government fail to satisfy people's need for an Authority that will tell them what to do & what to think, but the increase in police-state methods has made people less safe from violent crime, and the increase in welfare-state programs has made people less financially secure (via inflation). The increase in the state's complexity & apparent power of Big Government has been matched by a rise in the popularity of small communities like the Moonies & the Children of God, which give people the mental & material security they crave, often by being more totalitarian than the government dares to be.

Peace,

Arthur Hlavay

250 College Ave.
New Rochelle, NY 10801

Dear Mr. Baer:

Applause, cheers, and much gratitude for Philip A. Schreffler (May 1977, "May God Blesses Mainstream") and his attack on the Mainstream Myth. If writers (and readers) are often arrogant about their field, but few would dare to claim that it is the only "true" literature and all else is just the "genres"—or worse, trash.

Having been associated with a university, both as a student taking basic creative writing courses whose teachers wished they were good enough to make money at writing and to spend half their time telling you that writing should not be for money and as an editor at a university press where those pathetically bad manuscripts kept coming in from Ph.D.s whose writing talent should have been confined to bathroom walls where it could be painted over now and then, I have had more than ample exposure to the pretensions of the literati. And here is the truth about the myth: "Mainstream" is never written by anybody good. Good writers write for the markets—Dickens for the newspapers with his dreadful cliff-hanger chapter endings, Shakespeare to please the rubbernecking groundlings, Milton to get brownie points from Cromwell's super-religious government, etc. ad infinitum. Then, fifty years after a particularly popular writer is dead, all the universities are studying him. Then, followed by the second-rate ones of English 107 and number's theory (rhymes with focus), said writers are buried under waste matter until, at last, they open into "great writers" and are thus models for the mainstream.

Silly, huge numbers of young college students, reasonably intelligent,

are misled and brainwashed into believing that, in order to be a "good" writer, they must write "like" one of these baptized-into-the-mainstream dead writers. Or like John Updike, one or the other. And should they dare to write science fiction, besides the floods of vomit on their paper as it is returned, they earn the scorn—if not wrath—of the professor whose sensibilities have thus been assaulted.

The mainstream is just one genre, like any other. I like to call it the "litrary genre" and I happen not to like the pretensions of its practitioners, with some few—and delightful—exceptions. There are other genres I don't like—westerns, for example, and big sexy blockbusters (trashblockers?). There are genres I love—juveniles, science fiction, mysteries, thrillers, satire. But my preferences do not label me inferior (within each genre I am certainly capable of making reasonable judgments about good, bad, and indifferent), nor do I consent to being drummed out of the intelligentsia (my IQ qualifies me for membership in all but the most exclusive intellectual cliques). I just don't happen to like the "mainstream" genre very much, that's all.

And that's why I'm glad to learn through Schreffler's lovely piece of writing that I am not alone! I write science fiction (and juveniles, and satire) because I love to read those things—and because I love to write them. And may all the foulest BEBs of sf literature defecate on my grave if I should ever claim to quit writing of in order to move "up" to the mainstream. I may write mainstream someday—may even sell it (we all can dream)—but that's a step sideways.

Maybe even a little bit down.

Applause for Schreffler and a vote of confidence for Galaxy.

Sincerely,
Orson Scott Card

31 "L" St. #312
Salt Lake City, Utah 84103

Dear Mr. Barn:

I do not necessarily try to correct a person when I feel he or she is wrong about something. But you are a magazine editor, and as such you influence thousands—perhaps millions—of people. And I hate to see someone in your position of power influencing people wrongly. So I'm writing to you.

In your editorial "Epistle to the Christians" (Galaxy, Dec. '76), you considered Genesis 1:28, "Be fruitful and multiply . . ." to be God's "Marching Order" for the human race. And you said that "anyone who both believes in the Old Testament and accepts the validity of the foregoing argument (your interpretation of Genesis 1:28) must consider himself as divinely instructed to do all in his power to further the progress of humankind into Space."

But anyone who has read the Bible knows that there are throughout it many instructions and orders from God to humankind. When your "Commander" has been giving you "orders" for thousands of years, which "order" do you "faith, commit" to? Which order do you do "all in your power" to obey, over and above any other order?

You pick the order that seems to be the "prime directive," the order that our "Commander" faith is the main and most important order, the greatest order.

A person asked God (Christ), "which commandment . . . is the greatest?" And Christ replied, "You shall love the Lord your God with your whole heart, with your whole soul and with all your mind." This is the greatest and first commandment. The second is like it, "You shall love your neighbor as yourself." On these two commandments the whole law is based, and the prophets as well." (Matthew 22:36-40) "There is no other commandment greater than these." (Mark 12:31)

So, for anyone who believes in the Bible, if there is any "order" that he or she must "do all in his or her power" to obey . . . any goal that he or she must resist and defy any person, process or philosophy that acts to the detriment of that goal . . . any goal that he (she) must be "fully committed to" . . . that order, that goal *must* be the one stated in Matthew 22:36-40 and Mark 12:28-31, not Genesis 1:28.

Sincerely,
Ronald E. Jackowski

111 Union Ave.
Linden, NJ 07036

Is what possible was ever doing in the spirit of Matthew 22:36-40 and Mark 12:28-31 conflict with Genesis 1:28?

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